REPSG
React Environmental
Professional Services Group, Inc.

SELF IMPLEMENTING ON-SITE CLEANUP AND DISPOSAL PLAN

FORMER SCHMIDT'S BREWERY
Bounded by N. 2nd St., Girard Ave., Hancock St., Wildey St., Germantown Ave.
City of Philadelphia
Philadelphia County, Pennsylvania

February 12, 2009

REPSG Project Reference No. 6651.130.03

PREPARED FOR:

Northern Liberties Development, LP
969 North Second Street
Philadelphia, PA 19123

This plan represents REPSG's knowledge of conditions on the Former Schmidt's Brewery at the time of preparation.

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of this Self-Implementing Onsite Cleanup and Disposal Plan (Report) is to provide the United States Environmental Protection Agency (EPA) Region 3 Toxic Substances and Control Act (TSCA) program with the information necessary to review and approve proposed activities in support of the "First Phase" of development on the Former Schmidt's Brewery Site ("Site"). As will be discussed further, this initial Report is intended to cover preliminary grading and limited remediation activities to allow the construction of an interim parking area on a portion of the Site. This work will involve handling of debris and TSCA regulated polychlorinated biphenyls (PCB) containing soils. The Report includes information on the source of the PCB contamination, nature and extent of the PCB impacts, and remediation plans.

Additional cleanup plan(s) will be submitted at a later date(s) for the remaining portions of the proposed developments, which include a 53,000 square foot grocery store, several commercial occupancy areas, and a multi-story parking lot on Lot I.

1.2 BACKGROUND

This Site is bounded by Girard Avenue to the north, Hancock Street to the northeast, Wildey Street to the southeast, Germantown Avenue to the southwest, and North 2nd Street to the west in the Northern Liberties neighborhood of Philadelphia, Pennsylvania and is the location of the former Schmidt's Brewery. The former Schmidt's Brewery is situated on 9.4 acres. NLD acquired the property via Sheriff's sale on February 2, 2000. Prior to NLD's acquisition of the property, transformers associated with the former Schmidt's operations were reportedly removed from the Site. From 2000-2001, NLD undertook remediation and demolition of the vacant and abandoned buildings. The investigation and remediation was performed under the oversight of the Pennsylvania Department of Environmental Protection (PADEP) Land Recycling Program (LRP) established by the Pennsylvania Land Recycling and Environmental Remediation Standards Act ("Act 2"). The results of this investigation and remediation were summarized in the Combined Remedial Investigation Report and Cleanup Plan (Act 2 Combined Report) submitted to the PADEP on January 31, 2008 (which describes investigation and remediation of PCBs as well as other compounds of concern). In a May 7, 2008 letter, PADEP concurred with the findings in the Act 2 Combined Report that soils impacted by PCBs have attained Pennsylvania's Statewide Health Standards for residential exposure.

Since the approval of the Act 2 Combined Report REPSG has continued an investigation in accordance with the TSCA program. This Report presents the information necessary, based on the TSCA framework in 40 C.F.R. Part 761, to review and approve proposed activities in support of the "First Phase" of development on the Site. The Site is currently vacant and former above grade structures have been demolished.

1.3 Report Organization

Organization of this report is as follows:

- **Section 1** provides an introduction to the Site and the scope and objective of this reporting.
- **Section 2** provides Site description and history of ownership and prior environmental investigations.
- **Section 3** details the recent sampling and analysis completed under the TSCA program.
- **Section 4** provides an assessment of the distribution of identified PCB impacts at the Site.
- **Section 5** presents the cleanup plan, including excavation plans and engineering control descriptions.
- **Section 6** presents the remediation schedule.

2.0 SITE DESCRIPTION

2.1 Site Description

Information presented in this section has been developed from a review of prior environmental reporting, visual site reconnaissance, and research of Federal, State and local records.

2.1.1 Site Location

The Site is located at the corner of North 2nd Street and Girard Avenue. It is bounded by Girard Avenue to the north, Hancock Street to the northeast, Wildey Street and former Chenango Street to the southeast, Germantown Avenue to the southwest, and North 2nd Street to the west.

As identified by City of Philadelphia tax mapping, the 9.4-acre Site is comprised of approximately 170 individual tax lots. Geographic coordinates of the Site, referencing the southeast corner of the intersection of North 2nd Street and Girard Avenue, are 242544 N, 2699747 E (NAD 83 Pennsylvania State Plane, South Zone, US Feet) / 39.9693291 N. Latitude, 75.1395516 W. Longitude. Site location is shown on the attached **Topographic Map (Appendix A)**.

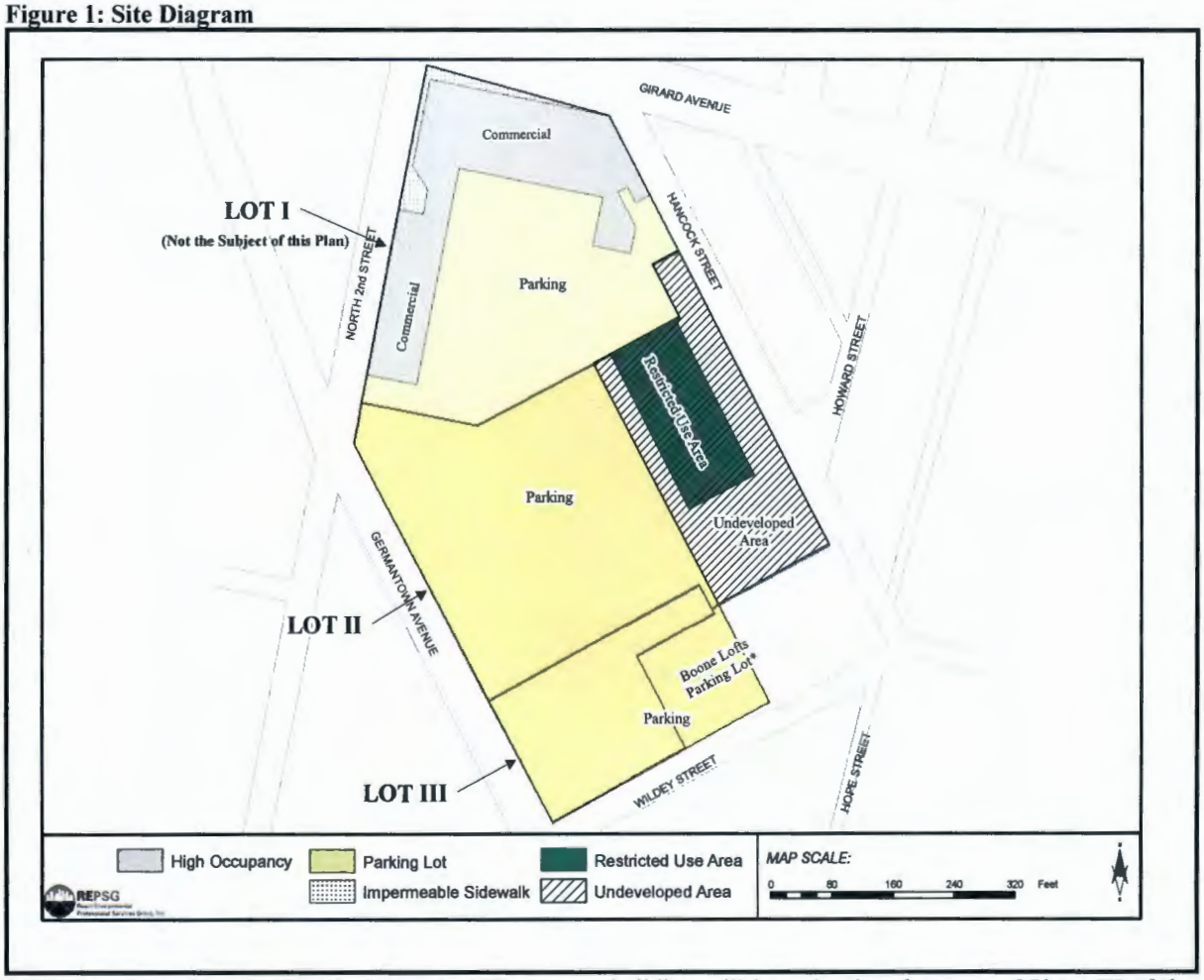
The Site will be divided into three lots for future development. Lot I is the northern 3.30-acre portion of the Site, and will include low-occupancy and high-occupancy development; Lot II is the central 5.43-acre portion of the Site and Lot III is the southern 0.90-acre portion of the Site, both these two lots will be developed with a ground level low-occupancy parking lot (see **Figure 1**).

2.1.2 Current Site Development and Usage

The Site is currently vacant. All historical on-site structures have been demolished. On-site access is restricted by chain-link fence along the perimeter of the entire Site. The buildings in the vicinity of the Site are comprised of a mixture of residential and commercial/light industrial properties. The area is

zoned Area Shopping Center (ASC) as defined in the Philadelphia Zoning Code. Site boundaries and the boundaries between the three phases of development are shown in **Figure 1** (see **Appendix A**).

Figure 1: Site Diagram



* The current parking lot for the Boone Lofts apartment building will be redeveloped as part of Phase III of the Schmidt's project. This parking lot was historically not part of operations at the former Schmidt's Brewery facility, and accordingly was not included in the scope of work for the PADEP Act 2 investigation as reported on January 31, 2008. Similarly, this portion of the Phase III development area was not included in the investigation summarized in this Report.

2.1.3 Proposed Site Redevelopment and Usage

NLD proposes mixed use for the Site, as depicted in **Figure 1**. This plan is subject to additional changes through the development approval process, however the plan has been supported by the community and is unlikely to undergo significant change relative to the building footprints and land usage. The development will occur in phases, as previously stated this Report covers the First Phase of the development. The First Phase of the development includes the following elements, which will be constructed on Lot II and Lot III of the Site:

Lot II & III

- A ground floor, single-level parking field, that will extend across portions of Lot II and the entirety of Lot III.
- A permanent, low-occupancy, impermeable TSCA cap to be constructed in an area where there is currently no proposed development. The design of this low-occupancy, impermeable TSCA cap will be described in the forthcoming Cleanup Plan.

The Second Phase of the development will involve development on Lot I. A later Cleanup Plan to cover the operations on Lot I will be submitted.

2.2 Site Ownership and Operational History

The former Schmidt's Brewery was constructed in the 1890's and operated from the turn of the century to the late 1980s. During its operation, the brewery expanded to occupy the area within Hancock Street, Wildey Street, Germantown Avenue and North 2nd Street, by constructing several buildings and parking lots over previous residential and commercial properties. Locations of former structures are provided in the Project Summary Report submitted to the EPA on July 29, 2008, and provided in **Appendix I.**

REPSG conducted a search of city records to identify the chain of ownership for the former Schmidt's Brewery. Because the Site as a whole consisted of approximately 170 separate tax parcels, assembling the chain of title for every parcel was considered impractical. The following table, **Table 1**, lists the grantors, grantees and dates of title transfer of some of the former operational portion of the brewery, known as Parcel 8-N-11 Lot 23 with an address of 160-186 Girard Avenue, and consisting of approximately 4.89 acres:

Table 1: Chain of Ownership, Parcel 8-N-11 Lot 23, 160-186 Girard Avenue

Grantor	Grantee	Date
Charles Voss	George Weldmann	8/15/1866
George Weldmann	Frederick Anti	3/26/1879
The Heirs to the Estate of Frederick Anti	Henry C. Schmidt, Edward A. Schmidt, and Frederick Schmidt	3/2/1896
Henry C. Schmidt, Edward A. Schmidt, and Frederick Schmidt	Albert A. Starck	3/19/1896
Albert A. Starck	George A. Webber	12/21/1909
George A. Webber	Katherine Starck	12/21/1909
Albert A. and Catherine Starck	Robert Noble	9/28/1911
Robert Noble	C. Schmidt and Sons, Inc.	9/28/1911
Sheriff's Deed, C. Schmidt and Sons, Inc.	Northern Liberties Development, LP	2/4/2000

The former Schmidt's Brewery has been abandoned since cessation of operations (exact date unknown). NLD acquired the Site through a Sheriff's sale in February 2000. The vacant and abandoned on-site structures were demolished and certain remediation activities were conducted by NLD from 2000-2007.

NLD conducted removal activities of hazardous or potentially-hazardous materials, which are understood to have existed on the Site before NLD's ownership, prior to and during demolition work.[1]

Removal of materials, including asbestos, was performed by a third-party contractor under oversight by the City of Philadelphia's Public Health Department's Air Management Services, Asbestos Control Unit. Disposal included four (4) PCB drums and 1 capacitor pack by a hazardous material crew. All of these materials and all other materials that were exported off site were disposed of in accordance with all applicable regulations. Documentation of PCB-related disposal is provided in the Project Summary Report included in **Appendix I.**

2.3 Summary of Prior Investigations

2.3.1 Project Summary Report

A Project Summary Report dated July 29, 2008 was submitted to the EPA. This report provided a summary of the site investigation work relative to PCB impacts at the Site. The Project Summary Report presented the investigation according to Area of Concern (AOC). The AOCs included specific locations where PCB impacts were likely to be present based on former Site use, and a Site-wide investigation to assess the potential for any addition areas with PCB impacted soil. The list of AOCs which were investigated for PCBs is presented in **Table 2**. No specific PCB source areas were noted on Lots II and III which are the subject of this Report.

[1] ePhase, Inc. Draft Limited Phase I Environmental Site Assessment, Former Schmidt's Brewery, 160-186 Girard Avenue, Philadelphia, PA. August 17, 1999.

Table 2: AOC List

AOC Name	*AOC Location*	*AOC Description*
AOC-002	**Lot I**	A former transformer room located at the ground floor of former Building #21.
AOC-003	**Lot I**	A former transformer room located at the ground floor of former Building #11
AOC-004A	**Lot I**	A former sub-surface vault located southwest of former Building #11
AOC-004B	**Lot I**	A former sub-surface vault located at the loading dock between former Buildings #24 and #12.
AOC-007	**Lots I, II, and III**	Site-wide soil quality

PCBs were initially evaluated for individual Aroclors in accordance with the PADEP Land Recycling Program (LRP) regulations (25 Pa. Code Ch. 250). PCB impacts to soil were identified at all five of these AOCs, and required remediation to attain residential statewide health standards (SWHS)[2] in accordance with Sections 250.703 and 250.707 of the LRP regulations. These remediation activities included the excavation and disposal of soils and post-excavation sampling to confirm the removal of impacted soils. PCBs were not identified in groundwater.[3]

3.0 TSCA INVESTIGATION

US EPA oversight was initiated by REPSG in July 2008. This investigation included grid soil sampling, and groundwater sampling at the Former Schmidt's Brewery Site. The objective of these investigations was to delineate specific areas of PCB impacted soil, provide additional coverage, and confirm the absence of PCBs in groundwater. The soil investigations had a particular emphasis in identifying areas which exceed specific high-occupancy action levels (1 and 10 ppm) and low-occupancy action levels (25 and 100 ppm). Groundwater sampling confirmed that groundwater is not impacted with PCBs, a discussion of groundwater results will be presented in the later Cleanup Plan which will cover the Lot I development.

3.1 Geoprobe® Drilling Procedure

Geoprobe® borings were advanced in at different locations across the Site and were advanced to different depths. All borings were advanced under the oversight of a REPSG geologist. Borings were advanced using a truck mounted Geoprobe® drilling rig, which collects soil samples by using direct push technology. A 2" diameter acetate sleeve was inserted into a 4' long stainless steel core. The core was pushed in the ground, and the soil was collected within the acetate sleeve. The sleeves were then retrieved, cut open, logged, and samples were collected. Four (4) foot and five (5) foot sleeve lengths were used by the two companies that were employed to advance the borings. These two companies include B.L. Myers Brothers and Co. of Glenmoore, PA and Environmental Probing, Inc. (EPI) of Cream Ridge, NJ. All drillers were licensed in the Commonwealth of Pennsylvania.

[2] Risk based and human health based derivation of the cleanup standards are provided in **Appendix I.**

[3] Both soil and groundwater samples were analyzed for the presence of PCBs by EPA Method 8082. Later, on October 3, 2008, as per the request of the EPA, the groundwater was tested for total PCBs via EPA Method 680, which is the preferred analytical method. These results did not identify any total PCBs at concentrations above the applicable MSC.

3.2 Sampling Procedure

3.2.1 Soil Sampling Procedure

All samples from the assessment were collected in-situ. Continuous soil cores were obtained from each of the soil borings that were advanced via the Geoprobe® rig, as described above. Soil cores were examined by the on-site scientist. REPSG's on-site scientist characterized the soil using visual and olfactory observations, as well as a portable photoionization detector (PID) equipped with a 10.6eV lamp, capable of detecting organic vapors. REPSG's on-site scientist noted any PID readings, which were measured at six inch intervals along the soil borings, any evidence of contamination, and the depth to groundwater. These notes, along with the depth from which samples were collected were used to create soil boring logs, which are included in **Appendix D**.

Clean, disposable, nitrile gloves were worn during all sampling collection activities. As per REPSG's Standard Operating Procedures, provided in **Appendix C**, approximately 50 cm^3 of soils were collected for each sample. These samples were packaged into 4 oz. jars, tightly sealed and clearly labeled with the sample identification number, project name, and date and time of sample collection. After a sample was collected, it was placed immediately in an insulated cooler with ice to maintain a temperature of approximately 4 degrees Celsius. Each sample was entered on a chain of custody form that was maintained with the samples and transported to ALSI, where these soil samples were analyzed for total PCBs via EPA Method 8082. In accordance with US EPA standards[4] Quality Assurance/Quality Control (QA/QC) samples were also collected and submitted along with the primary samples for analysis. These EPA approved QA/QC samples included duplicated samples collected at a 5% frequency.

3.3 Investigation Derived Waste

Decontamination activities for the non-disposable equipment, and the disposal of the used Geoprobe® sleeves were handled by the drilling company.

4.0 CONTAMINANT DISTRIBUTION

Analytical data collected from previous investigations was used to create a preliminary conceptual model of the soil conditions at the Site. Analytical data from previous investigations covers a period of roughly six years, from 2002 through 2007, and includes a total of 371 soil samples across the entire Site; 79 of these soil samples were collected on Lots II and III. One of the soil samples was over-excavated during remediation conducted under PADEP oversight, the remaining 78 soil samples are in-situ. The locations of these soil samples and the analytical results for these samples are included in **Appendix A** and **Appendix B,** respectively.

Using the existing analytical data, REPSG performed a sampling effort to fill data gaps in order to delineate the vertical and horizontal extent of PCB contamination. As previously described in **Section 3.0**, these sampling efforts were initiated in July 2008, and included an additional 142 soil samples collected

[4] Standard Operating Procedure for Polychlorinated Biphenyls (PCBs) Field Testing for Soil and Sediment Samples, Office of Environmental Measurements and Evaluation, EPA Region New England, April 17, 2002.

on Lots II and III, which were analyzed for total PCBs. The locations of these soil samples and the analytical results for these samples are included in **Appendix A** and **Appendix B,** respectively.

The distribution of PCB impacts across Lots II and III was evaluated using all historical and recently collected analytical data, which includes the analytical data from 220 soil samples, and the applicable TSCA standards based upon the proposed development. As discussed further in **Section 4.1** and **Section 4.2** the proposed development on Lots II and III is entirely low-occupancy, however a designated portion of Lot II (96'x224') will receive a permanent TSCA impermeable cap, and will be called the Restricted Use area. Out of the 220 *in-situ* soil samples present on Lots II and III 69 samples have been collected in the Restricted Area, and the remaining 151 have been collected on the other portions of Lots II and III. Further discussion of this analytical data, relative to the two proposed use standards, low-occupancy unrestricted use and low-occupancy restricted use, is presented in **Section 4.1** and **Section 4.2.**

4.1 Cleanup Goals

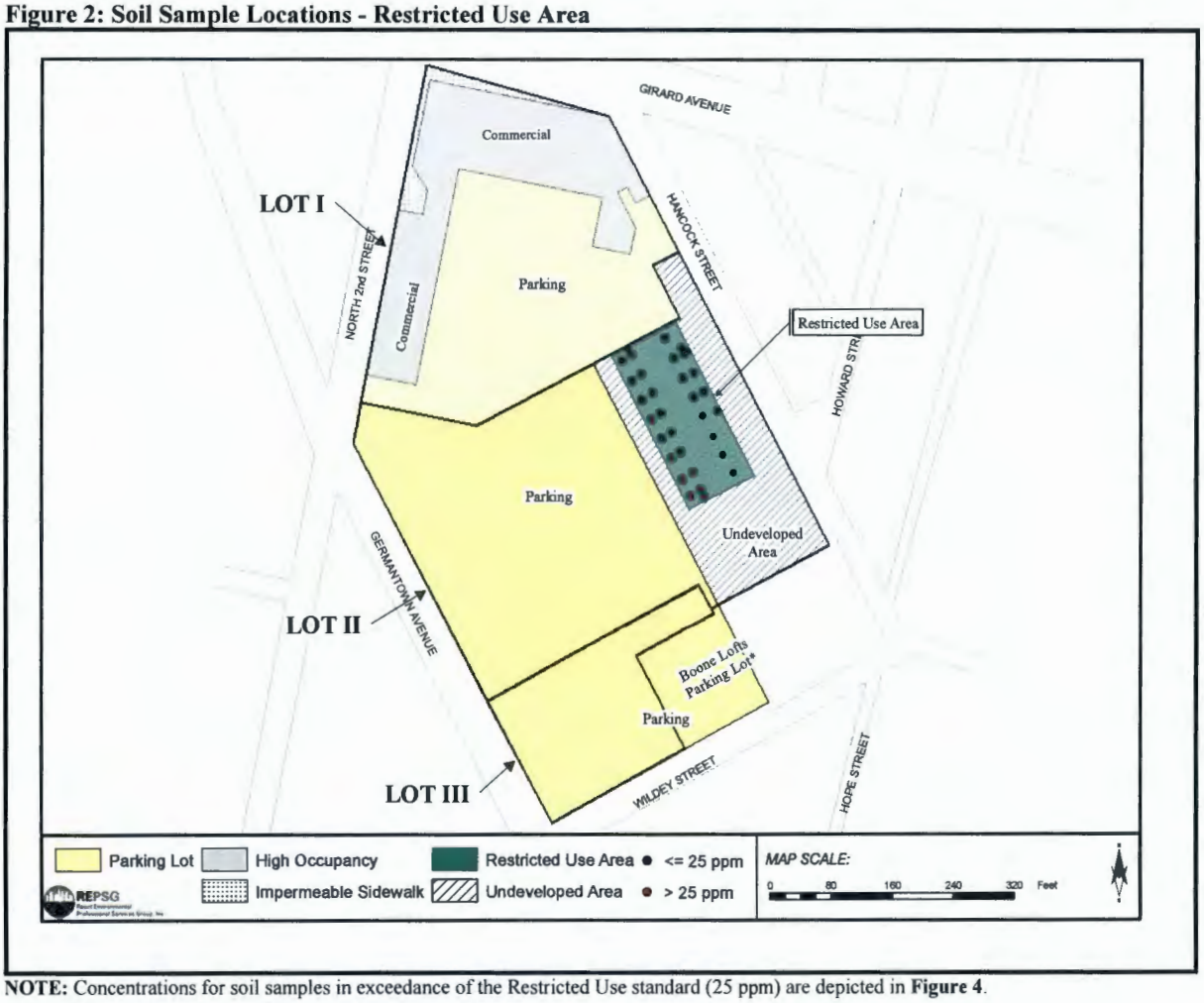
The following PCB cleanup goals are proposed for the First Phase of the Former Schmidt's Brewery Site.

- Low-occupancy Unrestricted use area: Total PCBs in Soil not to exceed 10 ppm.
- Low-occupancy Restricted use area: Total PCBs in Soil not to exceed 25 ppm.

4.2 PCB Soil Analytical Results – Restricted Use Area

There have been 69 in-situ soil samples collected from the restricted use portion of Lot II which will receive a permanent TSCA impermeable cap. Out of these 69 samples nine (9) samples have elevated total PCB concentrations above the low-occupancy restricted use standard of 25 ppm. These samples, which are described in **Table 3**, were all collected at two-and-a-half (2.5) feet below grade. Five (5) of these nine (9) samples have samples directly beneath them, that have total PCB concentrations below the low-occupancy restricted use standard, which provide vertical delineation, and two (2) of these samples have been horizontally delineated by samples collected at the boundary between the Restricted and unrestricted use area that have PCB concentrations below the low-occupancy restricted use standard. The locations of all 69 soil samples are presented in **Figure 2** (see **Attachment 1**).

Figure 2: Soil Sample Locations - Restricted Use Area

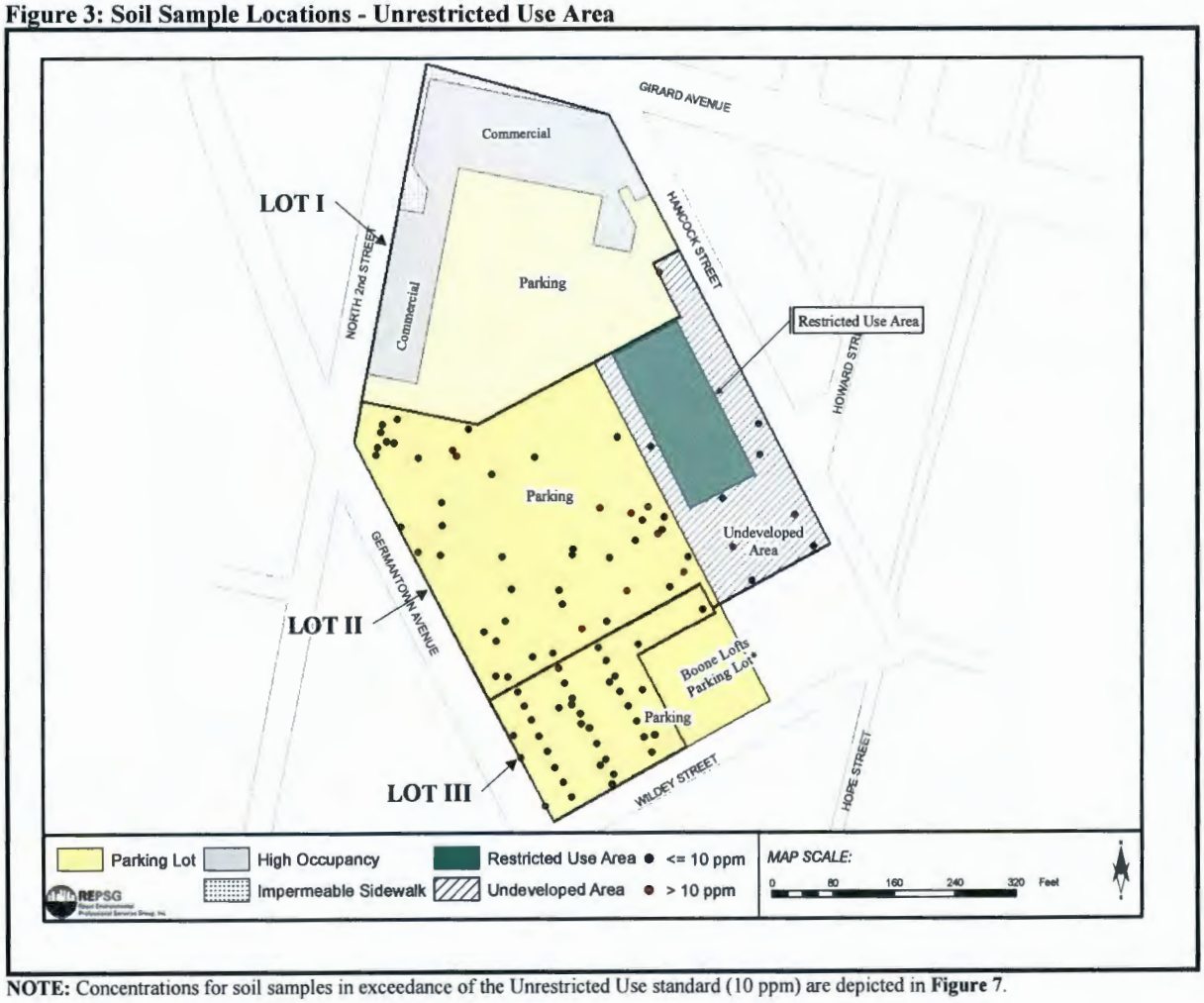


NOTE: Concentrations for soil samples in exceedance of the Restricted Use standard (25 ppm) are depicted in **Figure 4**.

4.3 PCB Soil Analytical Results – Unrestricted Use Area

There have been 151 soil samples collected from the unrestricted use portions of Lots II and III which remain *in-situ*, out of these 151 samples sixteen (16) samples which have total PCB concentration at elevated concentrations above the low-occupancy unrestricted use standard of 10 ppm. These samples, which are described in **Table 3**, were collected at between 0.5 and 8 feet below grade, and have soils samples with total PCB concentrations below the low-occupancy unrestricted use standard providing vertical and horizontal delineation. The locations of all 151 soil samples are presented in **Figure 3** (see **Attachment 1**).

Figure 3: Soil Sample Locations - Unrestricted Use Area



NOTE: Concentrations for soil samples in exceedance of the Unrestricted Use standard (10 ppm) are depicted in **Figure 7**.

5.0 CLEANUP PLAN AND APPROACH

5.1 Cleanup Approach

5.1.1 Soil

All soils on Lots II and III with total PCB concentrations above the low-occupancy restricted use standard of 25 ppm will be excavated and disposed of off-Site; all soils in the unrestricted use area of Lot II and Lot III with total PCB concentrations greater than 10 ppm will be excavated and disposed of off-Site, therefore no cap will be required for the unrestricted use areas of Lots II and III. This is summarized in the **Table 3**, below:

Table 3: Proposed Remedial Action Levels

Proposed Use	PCB Concentration	Remedial Action
Restricted Use (low-occupancy)	Total PCBs in Soil >25 ppm	Excavate and dispose off-Site to a permitted disposal facility.
Restricted Use (low-occupancy)	Total PCBs in Soil ≤25 ppm	Remain in-situ in the Restricted Use area with a permanent, impermeable TSCA cap.
Unrestricted Use (low-occupancy)	Total PCBs in Soil >10 ppm	Excavate and dispose off-Site to a permitted disposal facility.
Unrestricted Use (low-occupancy)	Total PCBs in Soil ≤10 ppm	Remain in-situ with no further engineering controls.

Further details on each step of the remedial action are presented below.

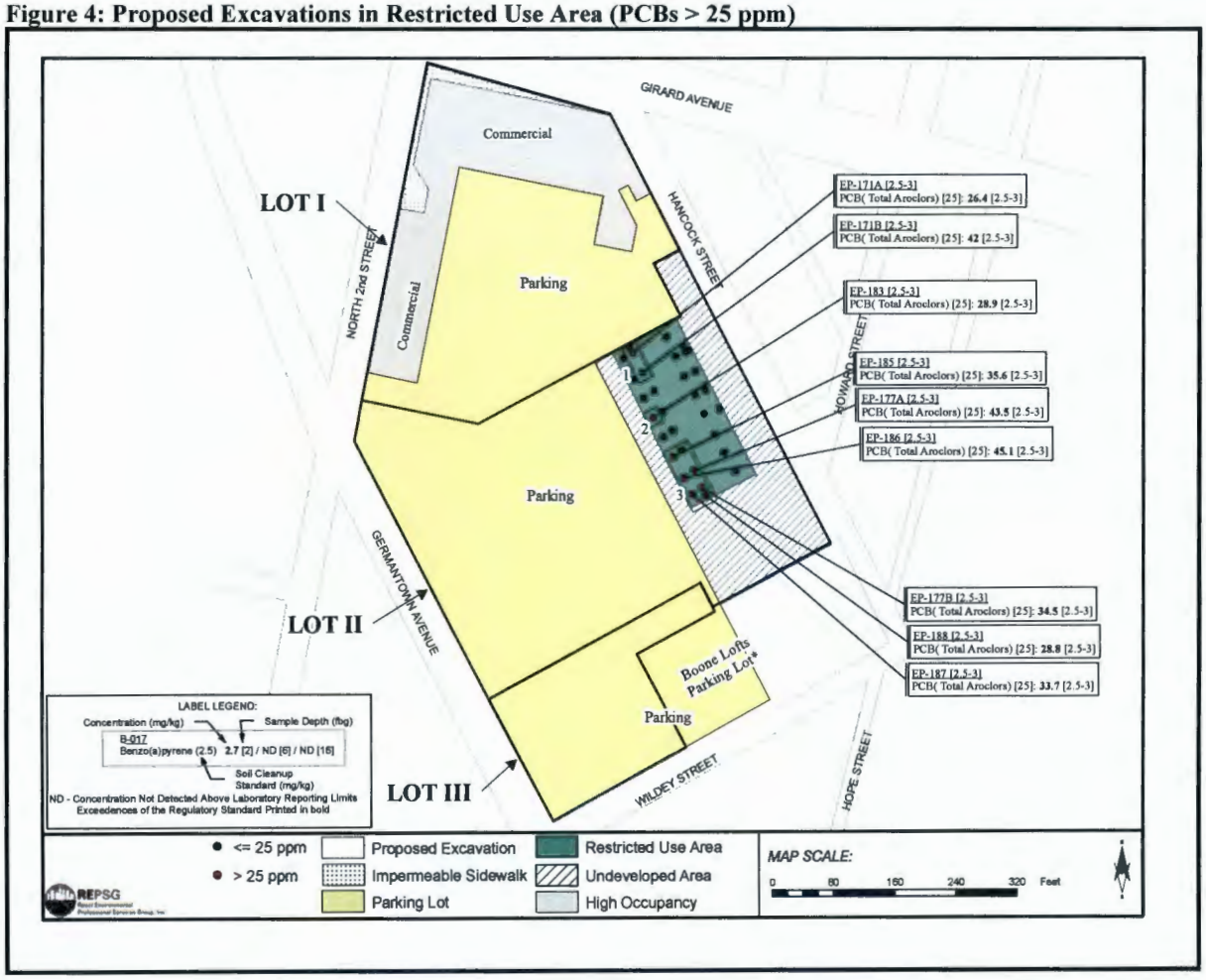
5.1.1.1 Excavation of Soil from Restricted Use Area for Off-Site Disposal (PCBs > 25 ppm)

There are three (3) locations in the Restricted Use Area, identified by nine (9) soil samples with total PCB concentrations greater than 25 ppm as shown in **Figure 4**, which require remediation. The names of these samples and excavations, as well as the dimensions of the excavations, and the proposed confirmatory samples are described in **Table 4**. These soils will be excavated, and disposed of off-Site at a TSCA regulated facility. As per the request of the Department, additional delineation samples have been proposed around the periphery of the proposed excavation area in the unrestricted use area on Lot II. These delineation samples will be taken prior to the excavation of soils, and will be used to help aid in the accurate delineation. These delineation samples are depicted in **Figures 5** and **6**.

Table 4: Proposed Excavations in Restricted Use Area (PCBs > 25 ppm)

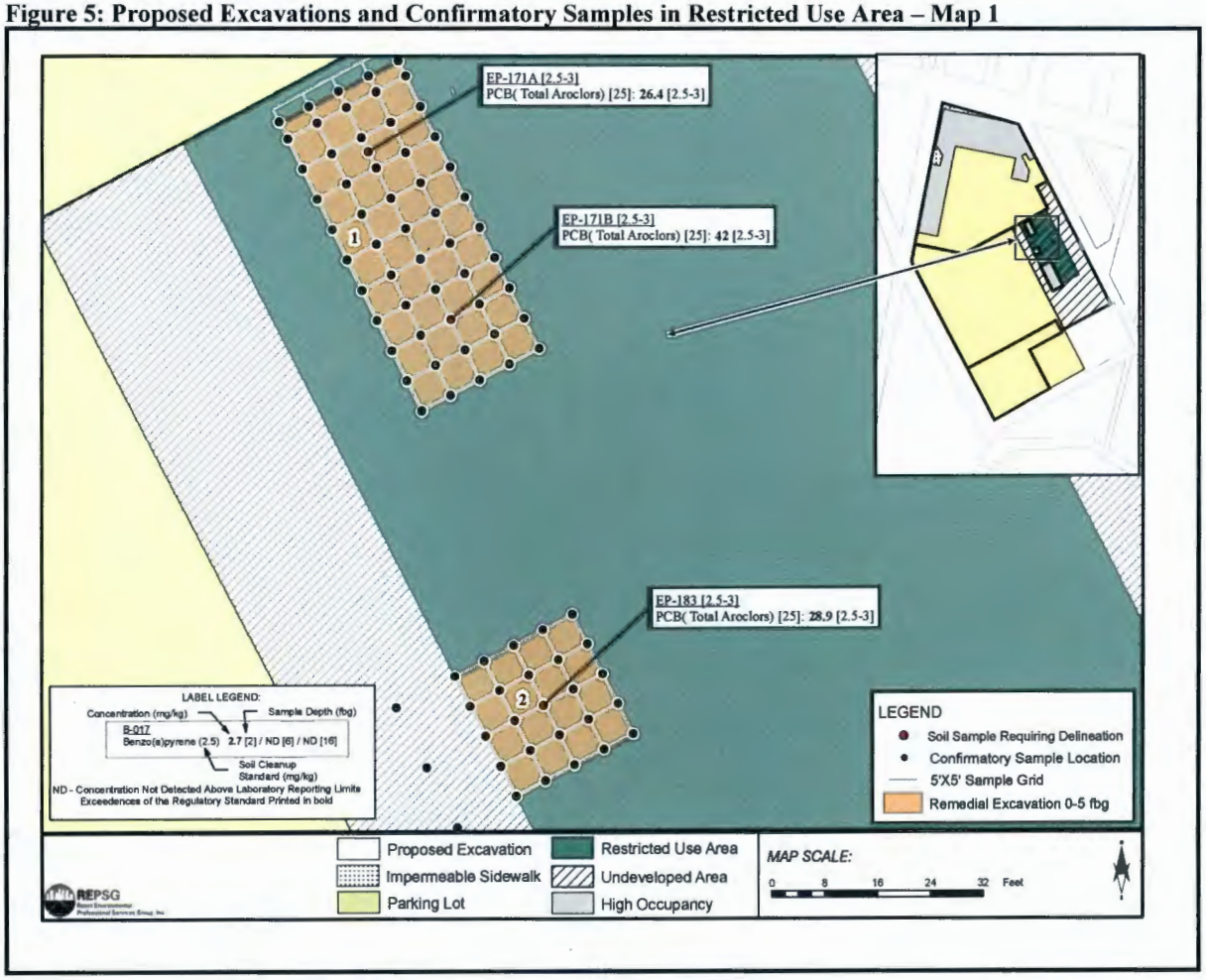
Excavation IDs	Sample IDs	Excavation Dimensions (LxWxH in feet)	Volume (cubic yards)	Number of Proposed Confirmatory Samples (base and sidewall)
1	EP-171A, EP-171B	20x47x5	174.07	55
2	EP-183	10x10x5	18.52	25
3	EP-177A, EP-177B, EP-185, EP-186, EP-187, EP-188	35x85x5	550.93	144

Figure 4: Proposed Excavations in Restricted Use Area (PCBs > 25 ppm)



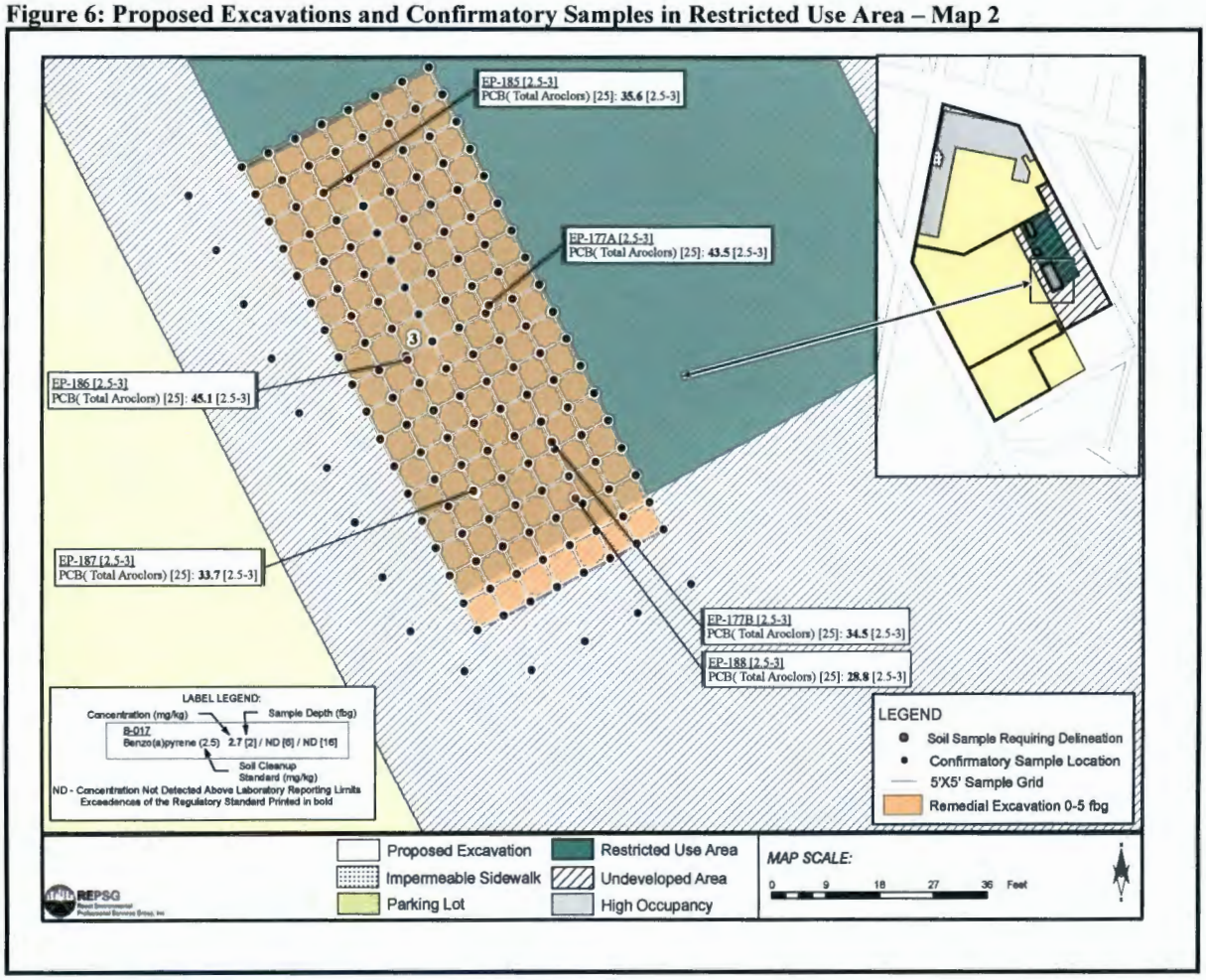
Once areas have been excavated to the required depths, confirmation in-situ sampling will be performed. **Figures 5** and **6** show a square-based grid system overlying the PCB removal areas, with sampling points marked out every 5 feet, as required by 40 CFR 761.61(a)(6), samples will be collected and analyzed for total PCBs via EPA Method 8082. All confirmatory samples will be collected in accordance with the sampling protocol described in **Section 3.2** of this plan.

Figure 5: Proposed Excavations and Confirmatory Samples in Restricted Use Area – Map 1



NOTE: The confirmatory sample locations that are outside of the proposed excavation areas will be considered delineation samples, and will be collected prior to remediation.

Figure 6: Proposed Excavations and Confirmatory Samples in Restricted Use Area – Map 2



NOTE: The confirmatory sample locations that are outside of the proposed excavation areas will be considered delineation samples, and will be collected prior to remediation.

If confirmation sampling results indicate that the clean up goals have not been reached then the excavation area will be expanded to include the area of soil with total PCB concentrations in exceedance of the cleanup goal. For confirmatory samples collected at the base of the excavation that have total PCB concentrations in exceedance of the cleanup goal the excavation will be extended up to an additional foot in depth, after which new confirmation samples will be collected and the process repeated. If the confirmatory samples that are in exceedance of the cleanup goals are located on the sidewall of the excavation, the excavation will be extended up to an additional one (1) foot in the direction of the sampling grid, after which new confirmation samples at the same depth will be collected and the process repeated. The excavation will continue in this step-wise fashion until the cleanup goals are met in confirmation samples.

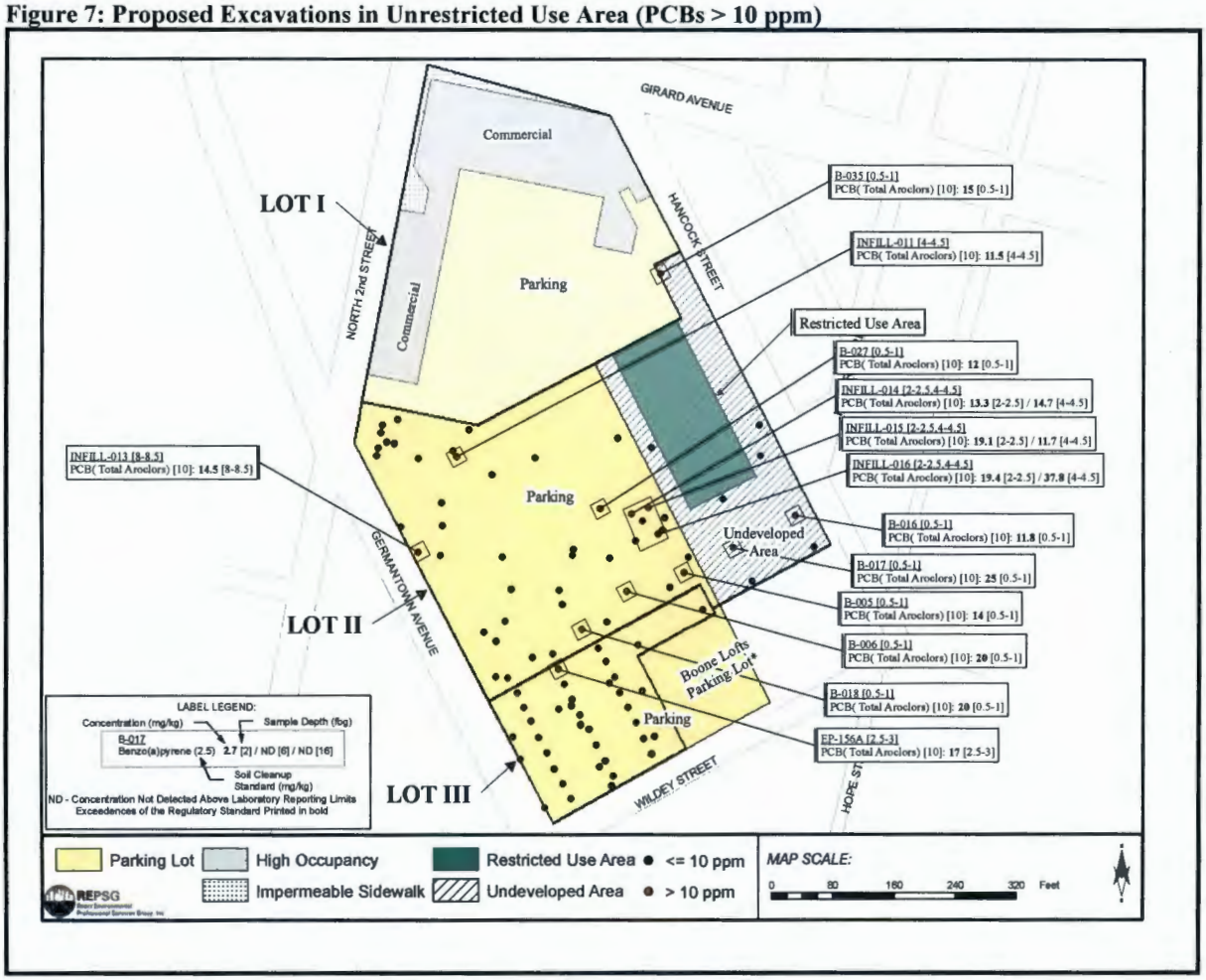
5.1.1.2 Excavation of Soil from Unrestricted Use Area for Off-Site Disposal (PCBs > 10 ppm)

There are eleven (11) locations in the Unrestricted Use Area, identified by sixteen (16) soil samples with total PCB concentrations greater than 10 ppm as shown in **Figure 7**, which require remediation. The names of these samples and excavations, as well as the dimensions of the excavations, and the proposed confirmatory samples are described in **Table 4**. These soils will be excavated, and disposed of off-Site at a TSCA regulated facility.

Table 5: Proposed Excavations in Unrestricted Use Area (PCBs > 10 ppm)

Excavation IDs	Sample IDs	Excavation Dimensions (LxWxH in feet)	Volume (cubic yards)	Number of Proposed Confirmatory Samples (base and sidewall)
B-005	B-005	10x10x2	7.41	25
B-006	B-006	10x10x2	7.41	25
B-016	B-016	10x10x2	7.41	25
B-017	B-017	10x10x2	7.41	25
B-018	B-018	10x10x2	7.41	25
B-027	B-027	10x10x2	7.41	25
B-035	B-035	10x10x2	7.41	25
EP-156A	EP-156A	10x10x5	18.52	25
INFILL-011	INFILL-011	10x10x5	18.52	25
INFILL-013	INFILL-013	10x10x10	37.04	96
Excavation D	INFILL-014, INFILL-015, INFILL-016	40x58x5	429.63	117

Figure 7: Proposed Excavations in Unrestricted Use Area (PCBs > 10 ppm)



Once areas have been excavated to the required depths, confirmation in-situ sampling will be performed. **Figures 8 - 13** show a square-based grid system overlying the PCB removal areas, with sampling points marked out every 5 feet, as required by 40 CFR 761.61(a)(6), and a minimum of three (3) samples for each type of porous matrix at each specific remediation location will be collected and analyzed for total PCBs via EPA Method 8082. All confirmatory samples will be collected in accordance with the sampling protocol described in **Section 3.2** of this plan

Figure 8: Proposed Excavations and Confirmatory Sampling Grid – Map 1

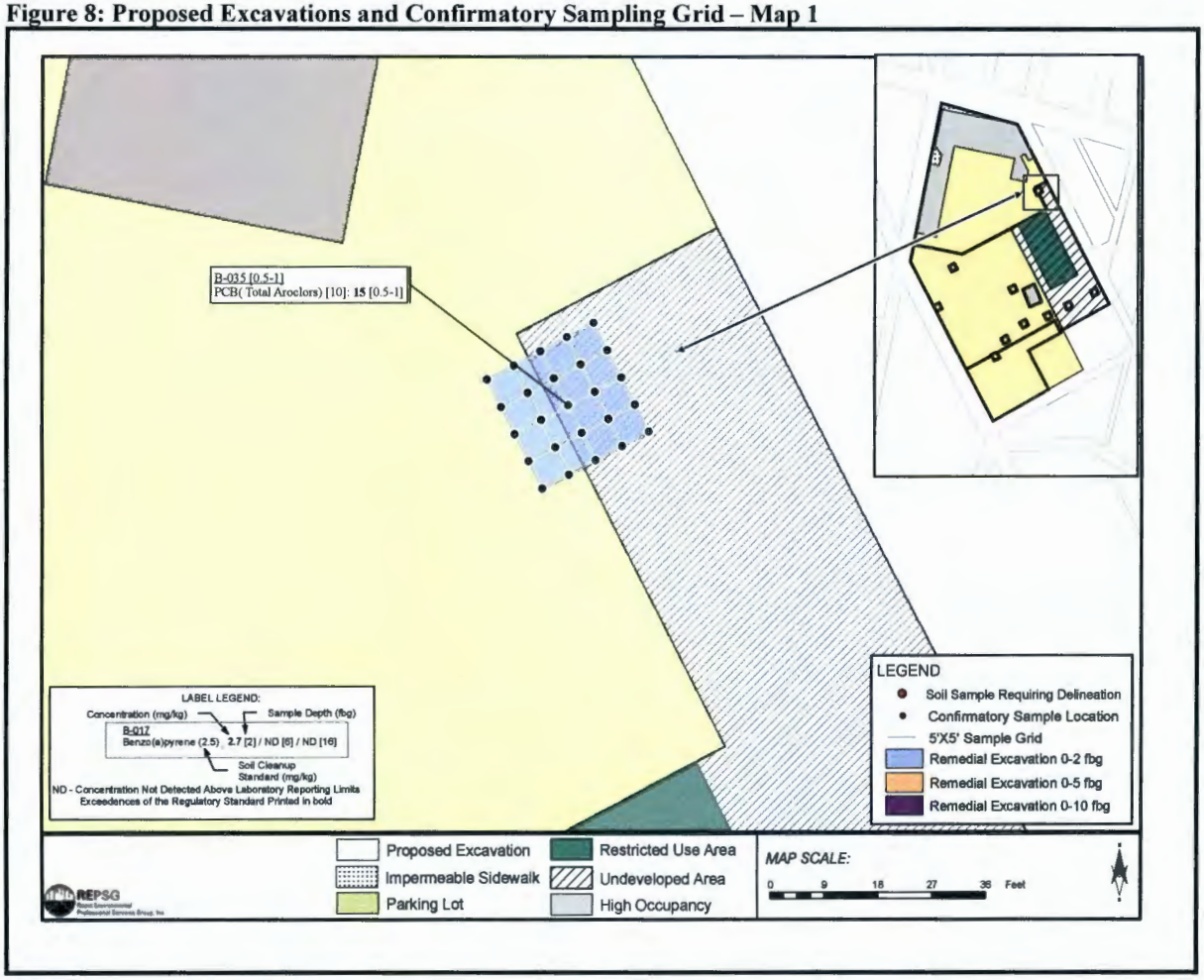


Figure 9: Proposed Excavations and Confirmatory Sampling Grid – Map 2

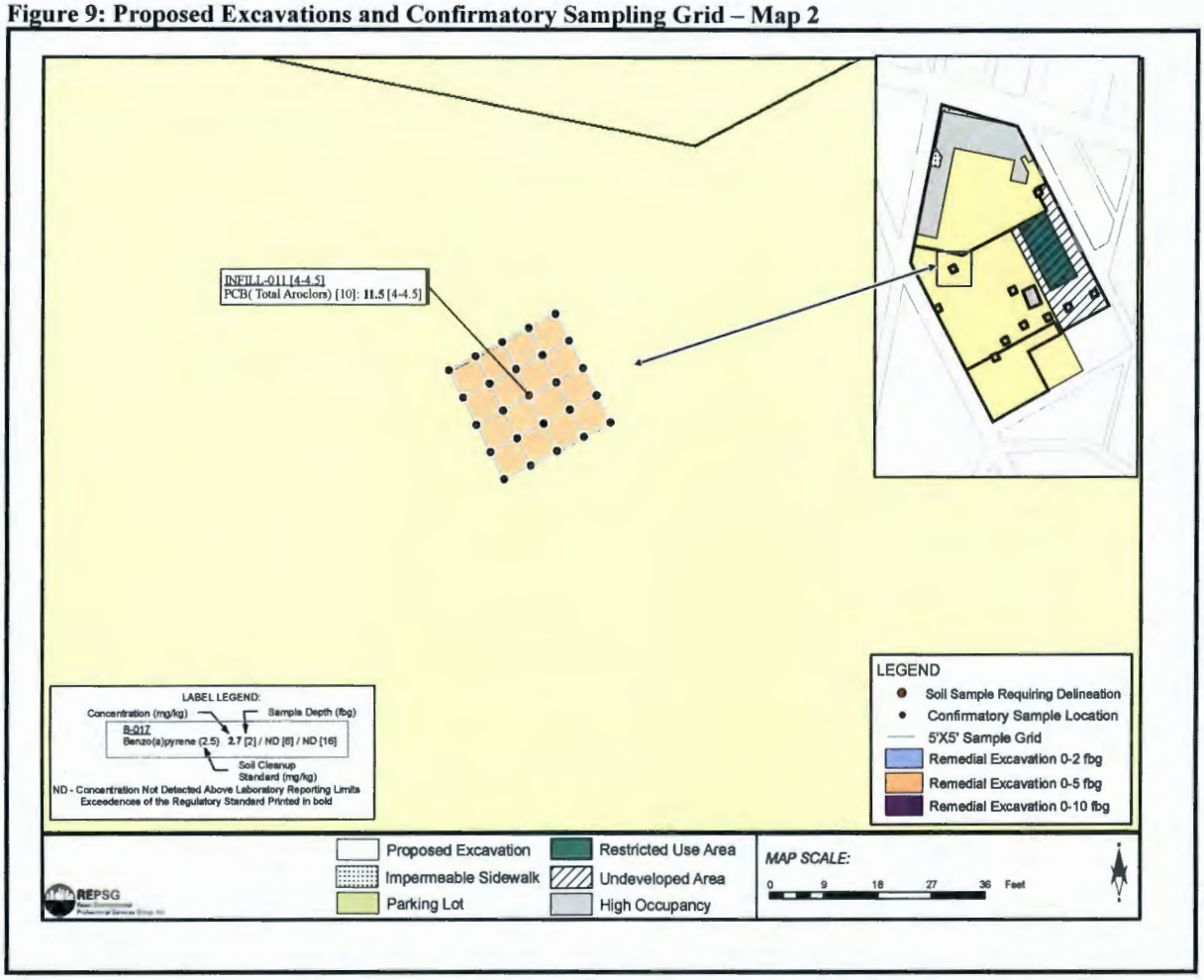


Figure 10: Proposed Excavations and Confirmatory Sampling Grid – Map 3

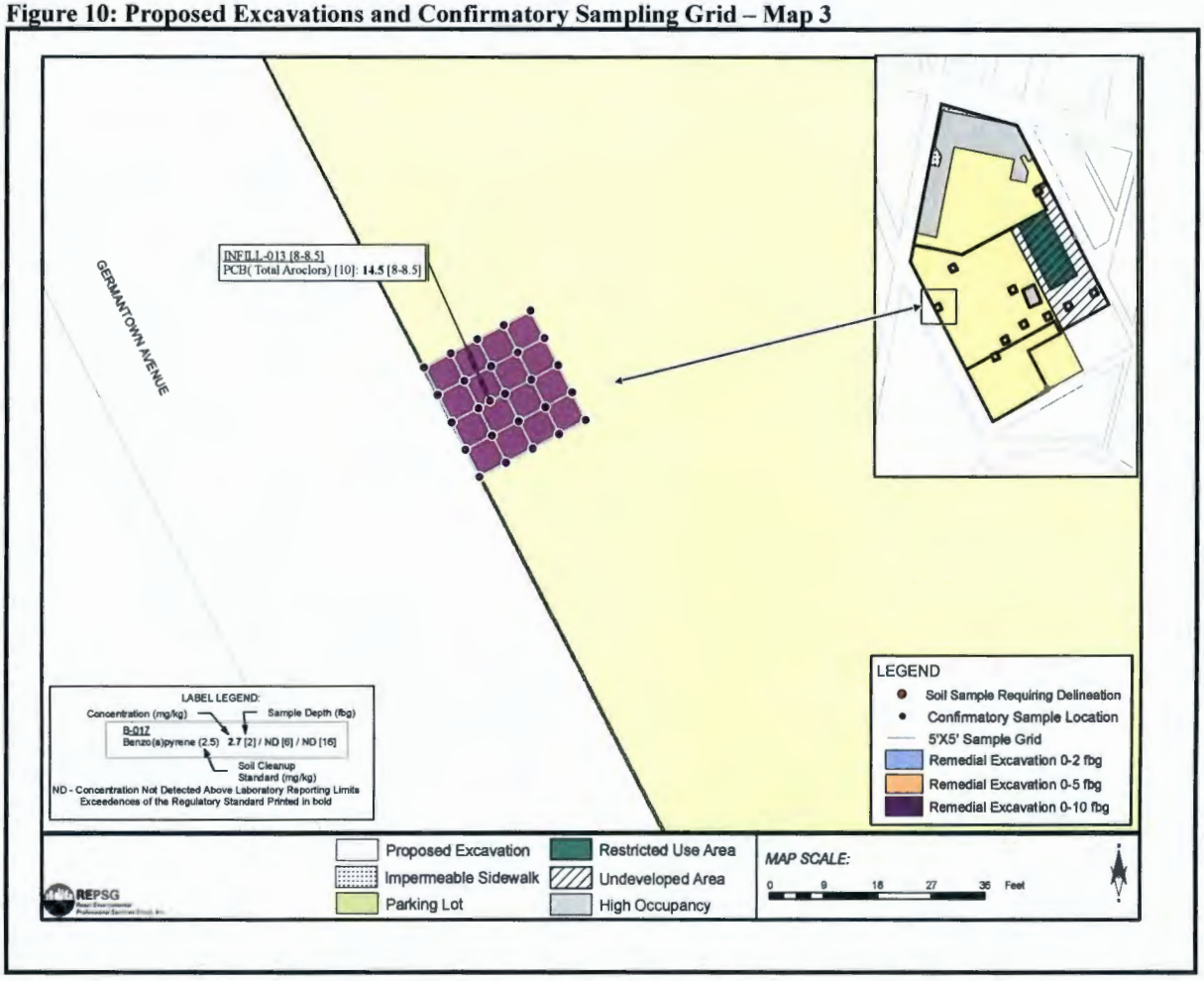


Figure 11: Proposed Excavations and Confirmatory Sampling Grid – Map 4

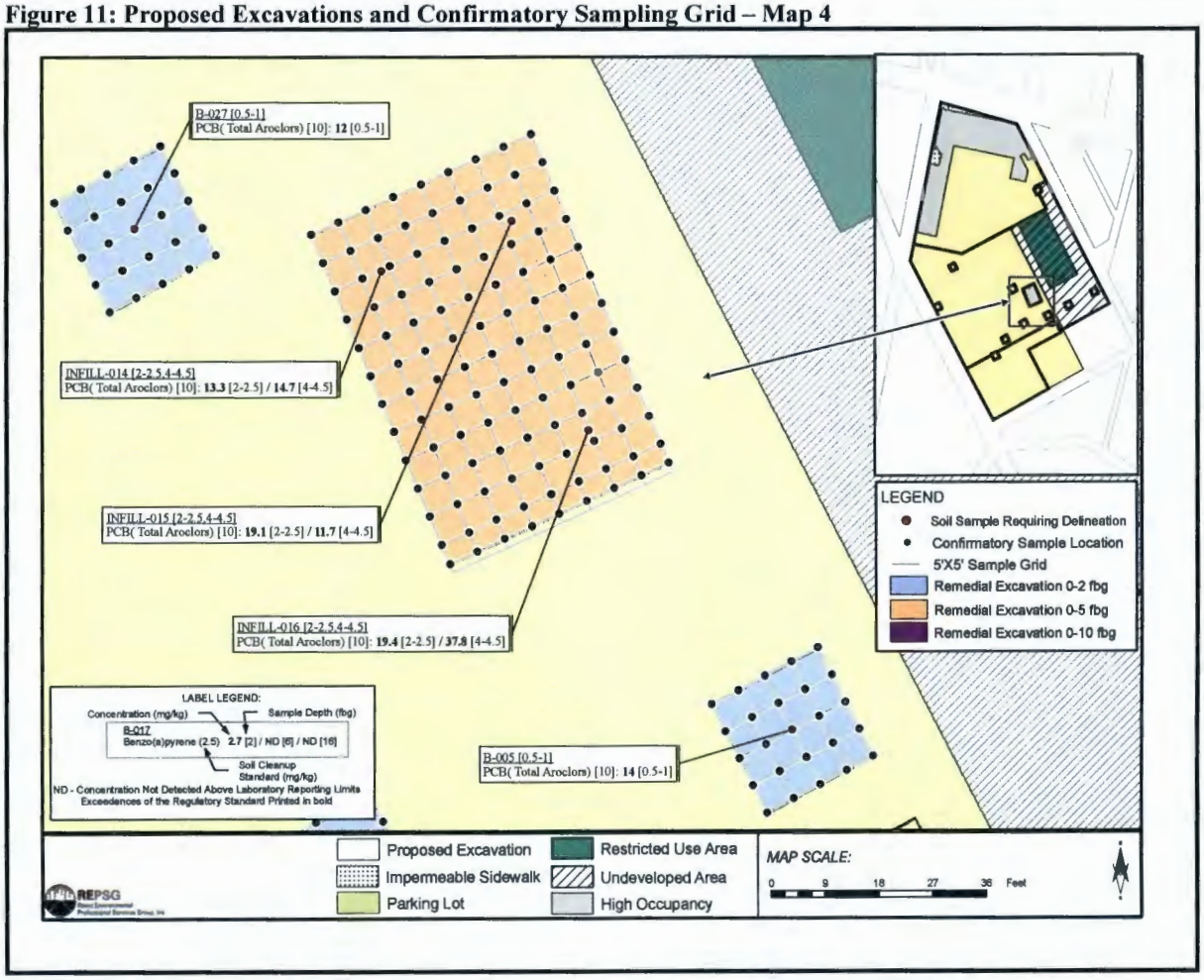


Figure 12: Proposed Excavations and Confirmatory Sampling Grid – Map 5

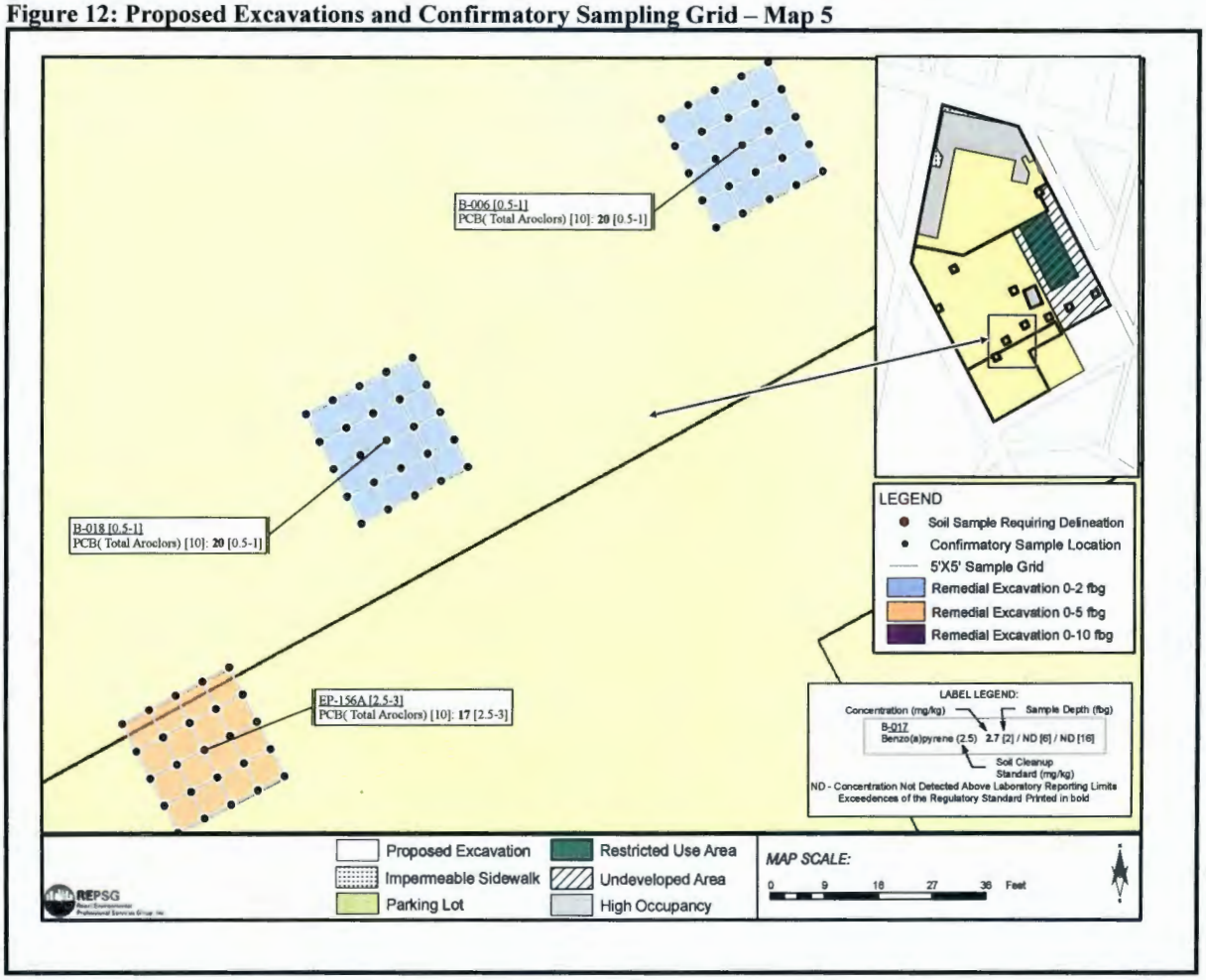
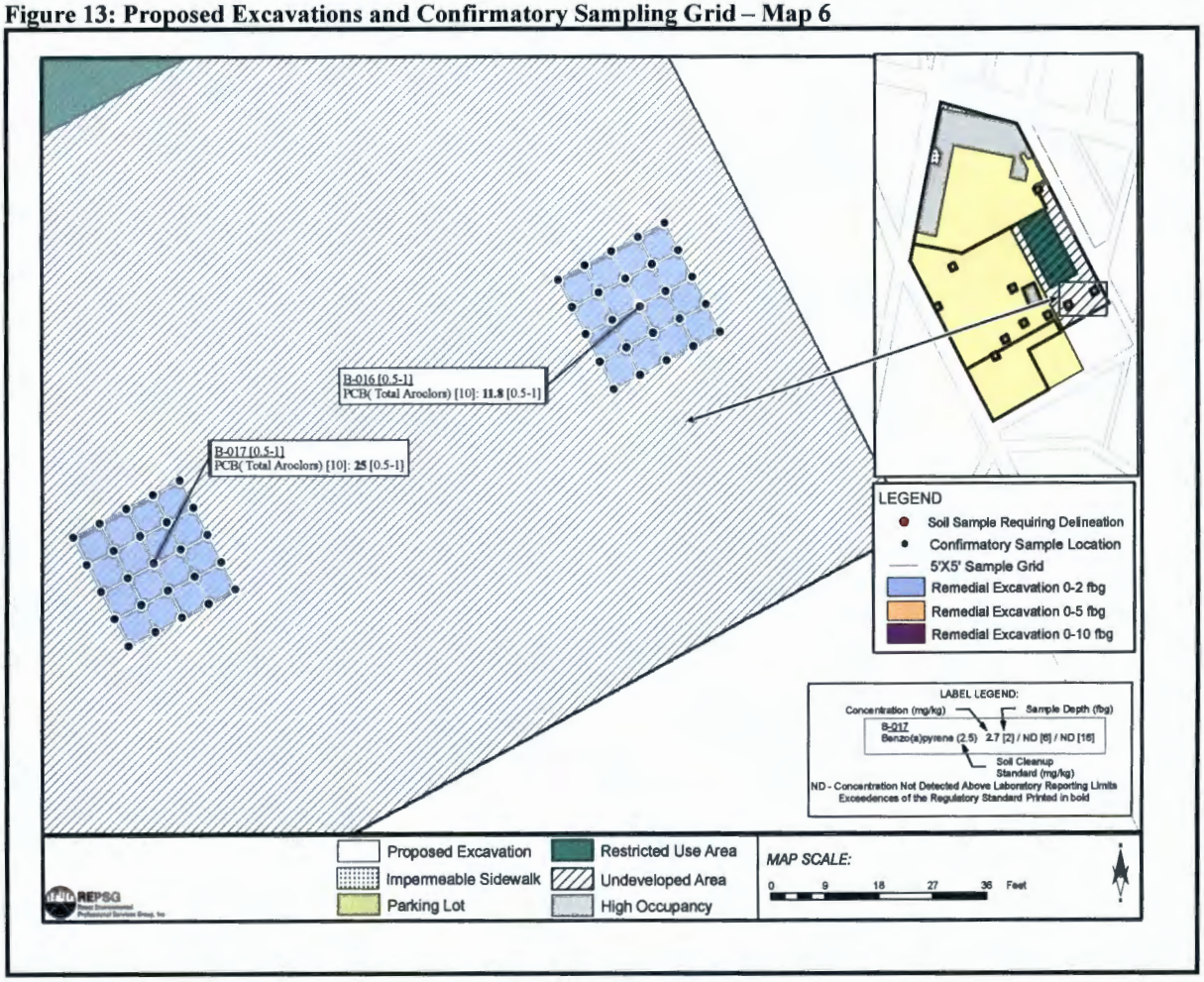


Figure 13: Proposed Excavations and Confirmatory Sampling Grid – Map 6



If confirmation sampling results indicate that the clean up goals have not been reached then the excavation area will be expanded to include the area of soil with total PCB concentrations in exceedance of the cleanup goal. For confirmatory samples collected at the base of the excavation that have total PCB concentrations in exceedance of the cleanup goal the excavation will be extended up to an additional foot in depth, after which new confirmation samples will be collected and the process repeated. If the confirmatory samples that are in exceedance of the cleanup goals are located on the sidewall of the excavation, the excavation will be extended up to an additional one (1) foot in the direction of the sampling grid, after which new confirmation samples at the same depth will be collected and the process repeated. The excavation will continue in this step-wise fashion until the cleanup goals are met in confirmation samples.

5.1.2 Subsurface Debris

In areas where PCB impacted soils are disposed of off-Site (greater than 25 ppm), subsurface debris will be disposed of with the soil if practical. Unless analyzed for total PCB concentrations the assumed total PCB concentrations for subsurface debris will be equal to the total PCB concentrations of the surrounding soils. Debris will be managed in the same way as soils, debris determined to not be structurally suitable will be disposed off-Site.

Upon excavation the debris will be stockpiled on-Site on a plastic liner. Wipe samples will be collected from segregated metals (as per 761 Subpart P) and brick, concrete and wood will be sampled in adherence with the EPA Region 3 protocol for concrete. Sampling frequency for this stockpiled material will be one sample per matrix per 500 cubic yards.

5.1.3 Dewatering of Excavations

None of the proposed excavations will be extended down to the water table, therefore no dewatering is expected during the First Phase of work, for which this cleanup plan is being submitted for.

5.1.4 Health and Safety

A Health and Safety plan specifically addressing remediation activities is included in **Appendix G**.

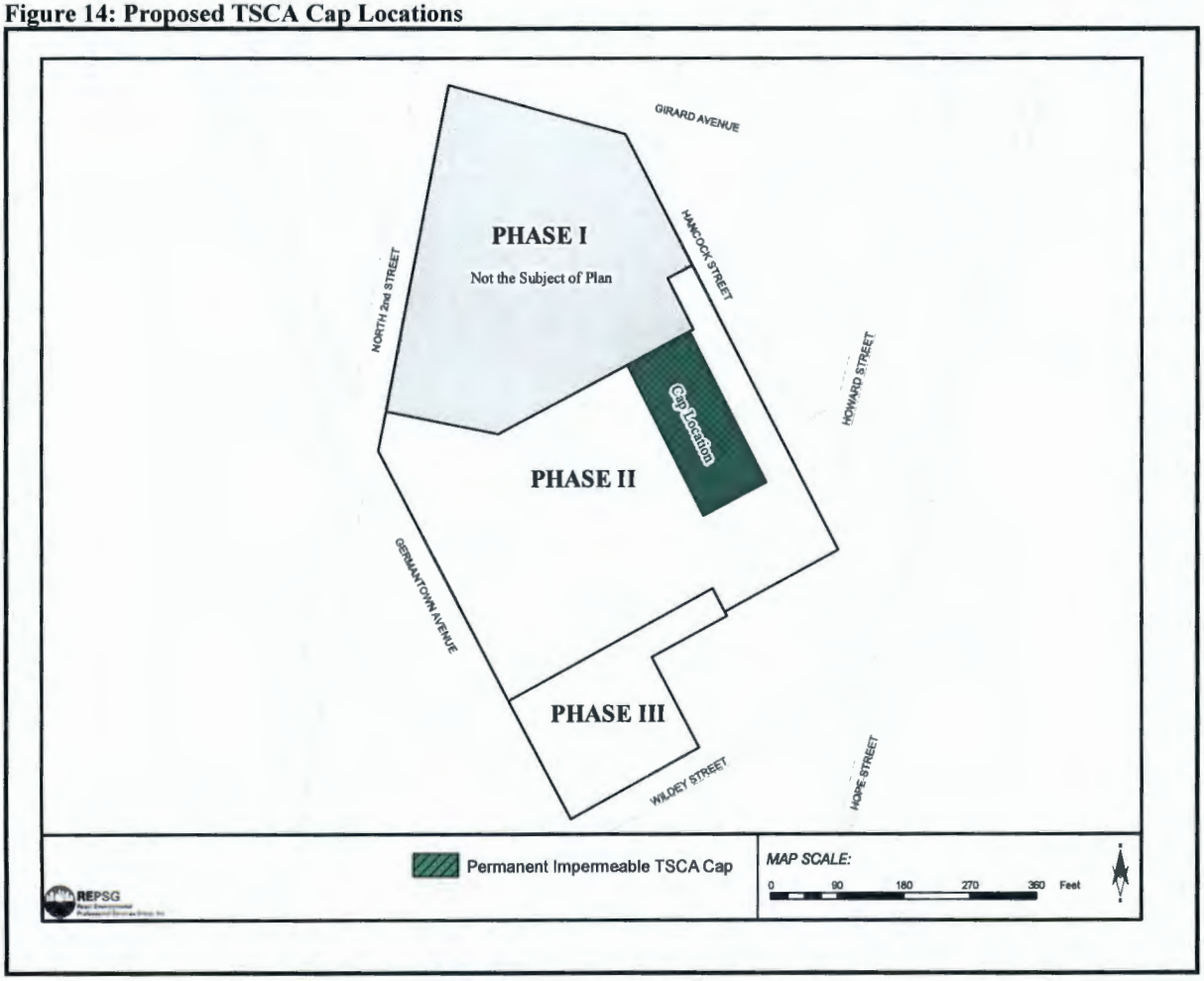
5.2 Backfilling

Excavated soils will be backfilled after the full excavation program is complete, and the cleanup goals for that area are met. These excavated areas will be backfilled with soils that are mined from locations on-Site that have been confirmed to meet the cleanup standards for the proposed occupancy.

5.3 Cap Design

The EPA has determined that the any areas of Lot II and III which exceed 10 ppm area will require a TSCA cap. This Restricted use area will have an impermeable cap constructed in accordance with the regulations described in § 761.61(a)(7). The location of this cap is depicted in **Figure 10**. Additional descriptions of the proposed cap design and implementation are provided in the Controls Maintenance and Monitoring Plan included in **Appendix H**.

Figure 14: Proposed TSCA Cap Locations



5.3.1 Utility Corridors

Utility lines that may be accessed for on-going operations that are placed within Site soils will require the import of clean fill material to be placed in the areas immediately around the utility corridors, for the protection of human health to future Site workers that may access these utility lines. Lines that are not installed within conduits, storm sewer, sanitary sewer, or water, will have a 2-foot radius of clean fill imported all around the utility line. Outside of this clean fill, between the clean fill material and the in-situ Site soils, a visual barrier, a fabric marker, will be installed to serve as a warning to Site construction workers who may come in contact with these PCB impacted soils in the future. The clean corridor profile is included in **Appendix F**.

5.4 Recordkeeping Requirements

Recordkeeping for the cleanup will comply with the requirements set forth in 761.61(a)(9) and 761.125(c)(5). Recordkeeping will be sufficient to document the cleanup with records of decontamination. Records will be maintained for a 5 year period. The records will contain the following information:

1. The date and time of cleanup activities and the daily log of Site work.
2. A description of the surfaces cleaned (if applicable) and the areas excavated each day to include the depth of excavations and the amount of soil removed.
3. Post cleanup verification data along with confirmation sampling methodology and analytical methods used.
4. Decision process and subsequent additional excavation and follow-up sampling where initial confirmation samples exceed cleanup goals.

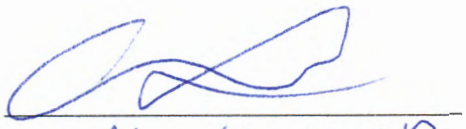
6.0 SCHEDULE

The PCB remediation will be conducted in multiple phases. Notifications will be provided as required. The First Phase of remediation, which is the only phase that this Cleanup Plan is intended to address, is anticipated to begin immediately upon approval of this Cleanup Plan. The First Phase will begin in February 2009, and is expected to be completed in March 2009.

7.0 CERTIFICATION

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the Former Schmidt's Brewery Site are on file at Northern Liberties Development, LP offices in Philadelphia, PA and are available for EPA inspection.

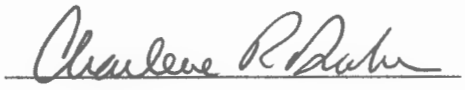
Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified sections(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.



Adam Lisewicky, VP

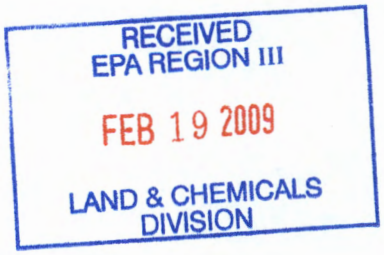
2/12/09

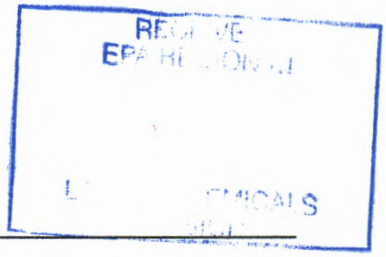
Date



2/12/09

Date





7.0 CERTIFICATION

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the Former Schmidt's Brewery Site are on file at Northern Liberties Development, LP offices in Philadelphia, PA and are available for EPA inspection.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified sections(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

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Date

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Date

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Appendix A

APPENDIX A: FIGURES

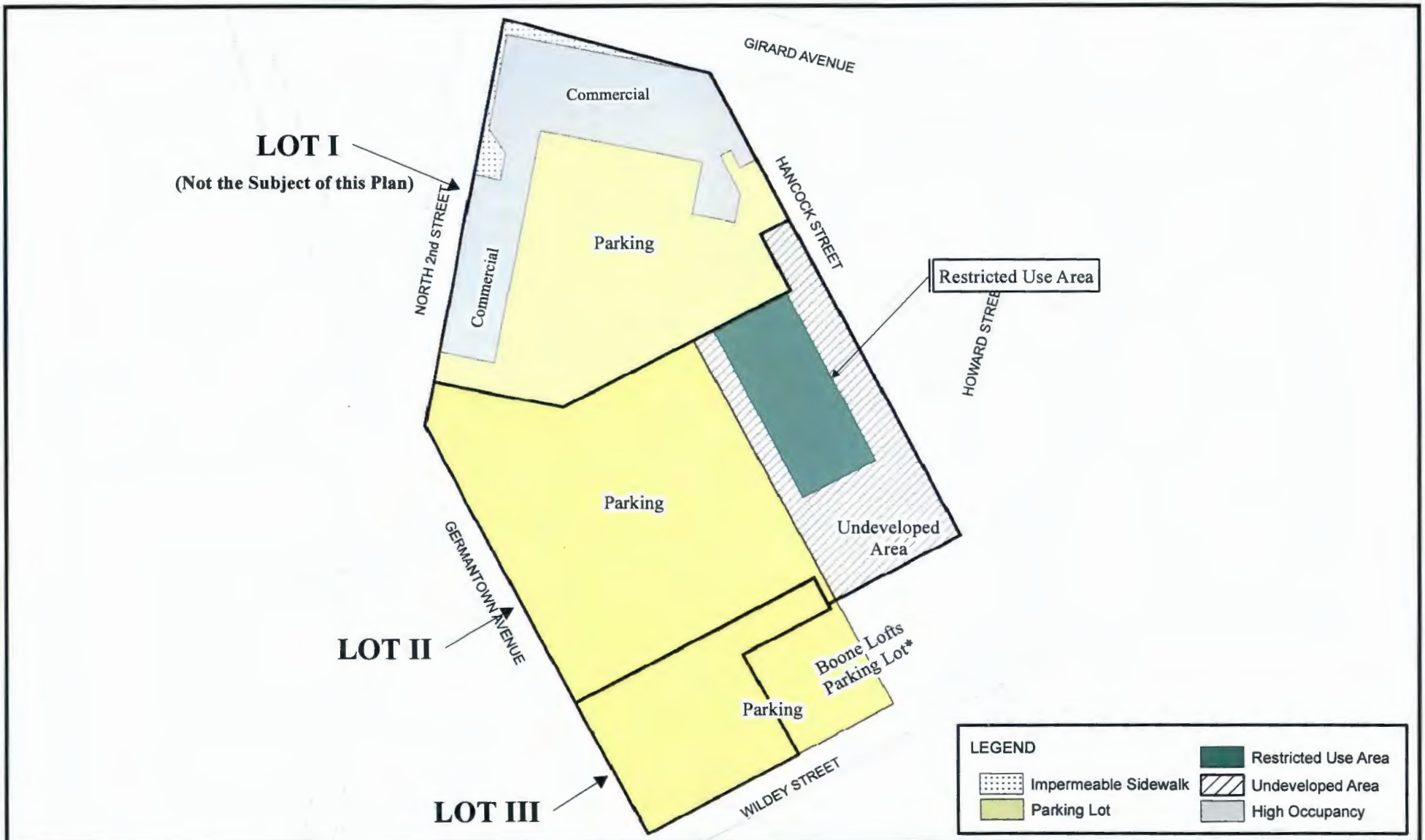

FIGURE 1: SITE DIAGRAM

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 160 feet

0 35 70 140 210 280 Feet

PROJECT NAME: ***FORMER SCHMIDT'S BREWERY***
PROJECT ADDRESS: ***NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA***
PROJECT NUMBER: ***006651***
DATE: ***FEBRUARY 2009***

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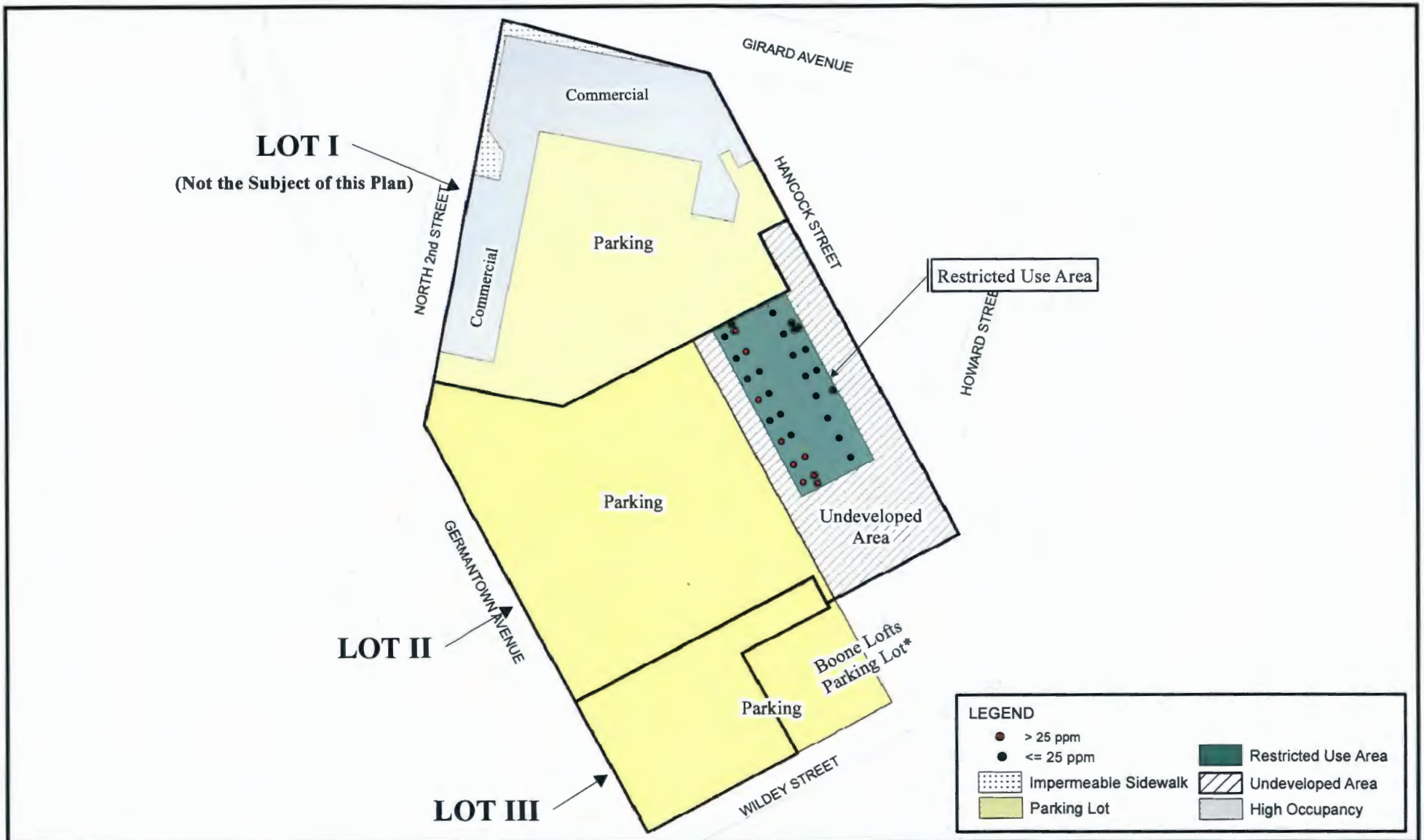

FIGURE 2: SOIL SAMPLE LOCATIONS - RESTRICTED USE AREA

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 160 feet

0 35 70 140 210 280 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

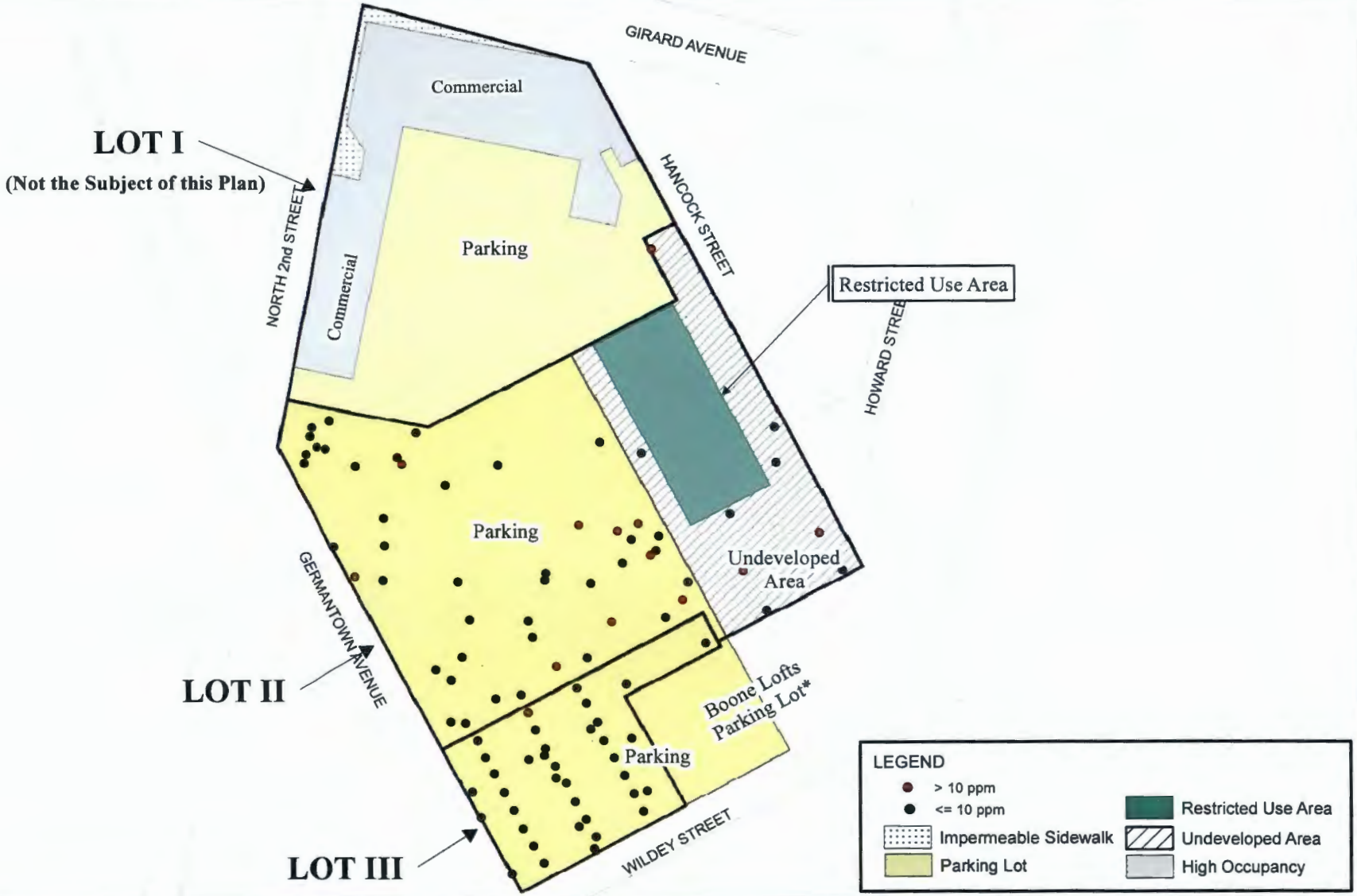

FIGURE 3: SOIL SAMPLE LOCATIONS - UNRESTRICTED USE AREA

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 160 feet

0 35 70 140 210 280 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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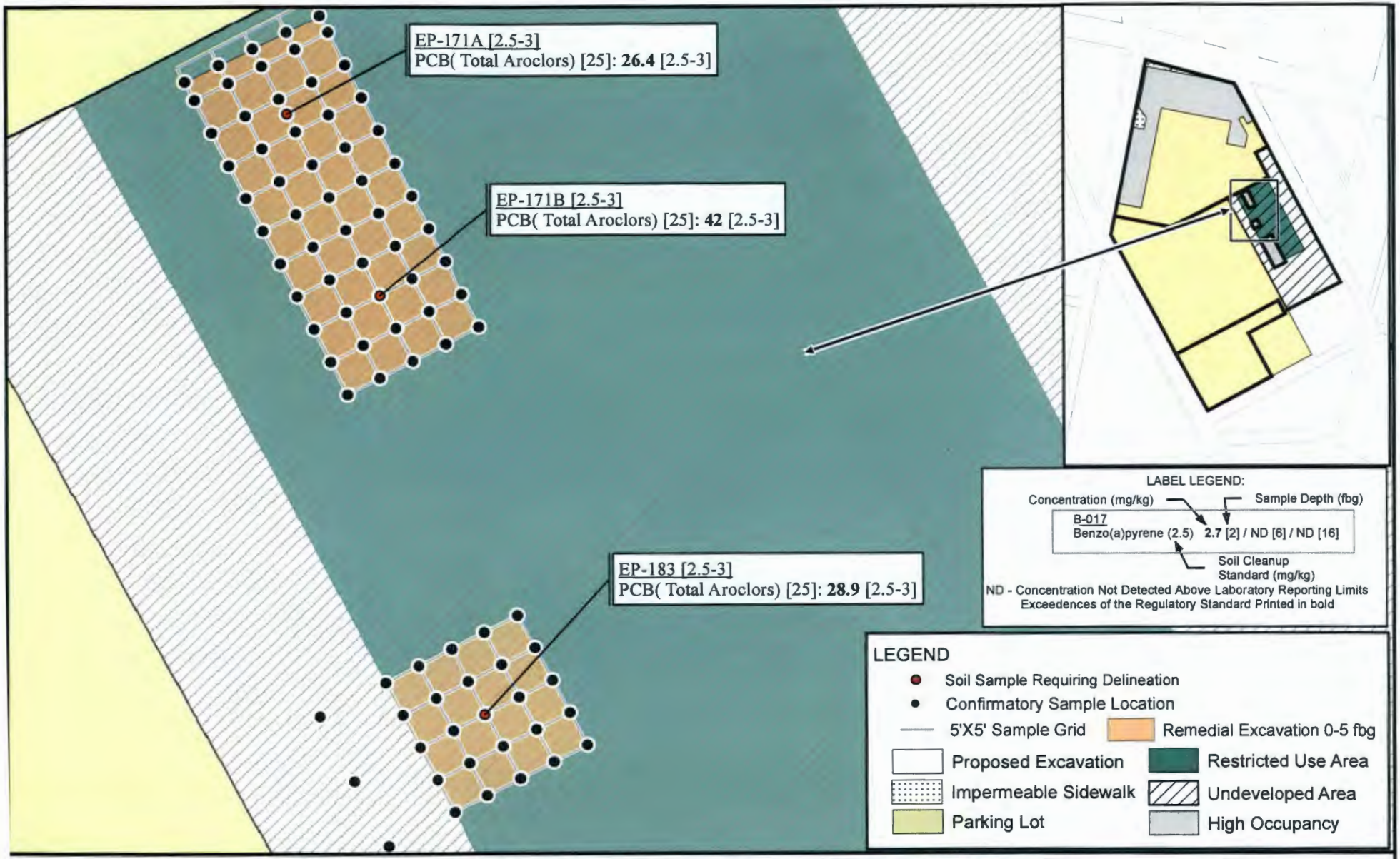

FIGURE 5: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING IN RESTRICTED USE AREA - MAP 1

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 18 feet

0 3.75 7.5 15 22.5 30 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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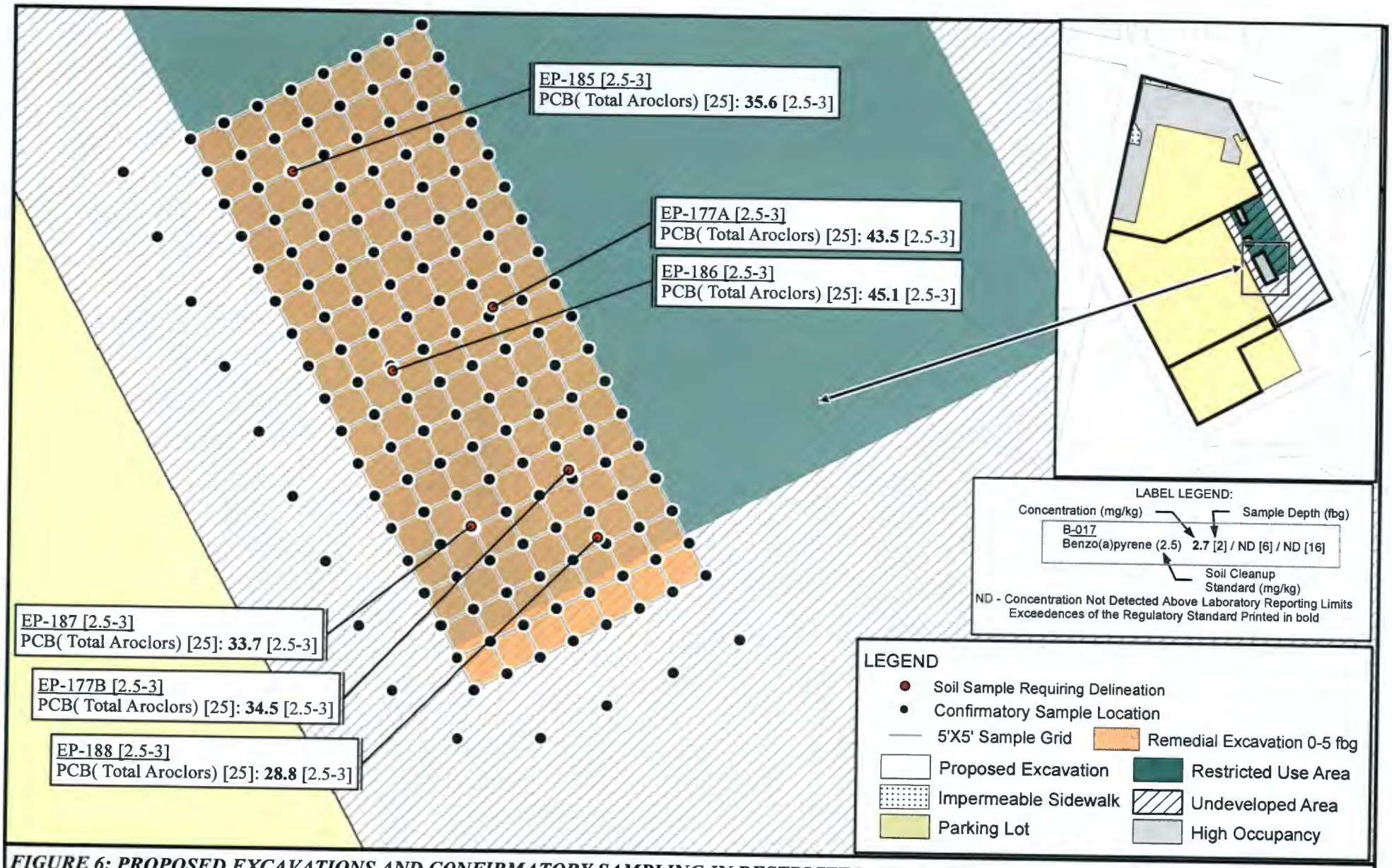

FIGURE 6: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING IN RESTRICTED USE AREA - MAP 2

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 18 feet

0 3.75 7.5 15 22.5 30 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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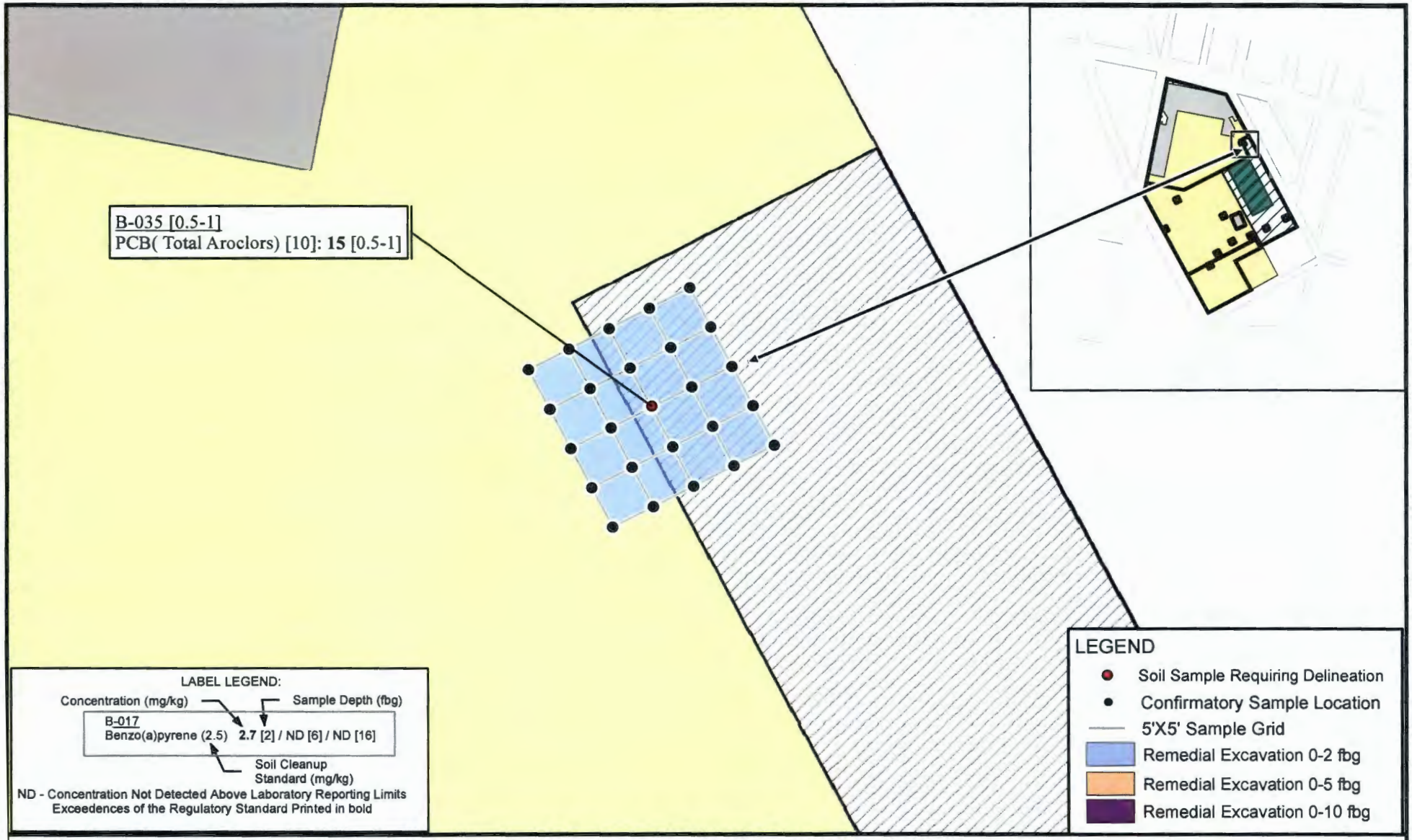

FIGURE 8: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING GRID- MAP 1

Proposed Excavation | Restricted Use Area | Impermeable Sidewalk | Undeveloped Area | High Occupancy | Parking Lot

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3 6 12 18 24 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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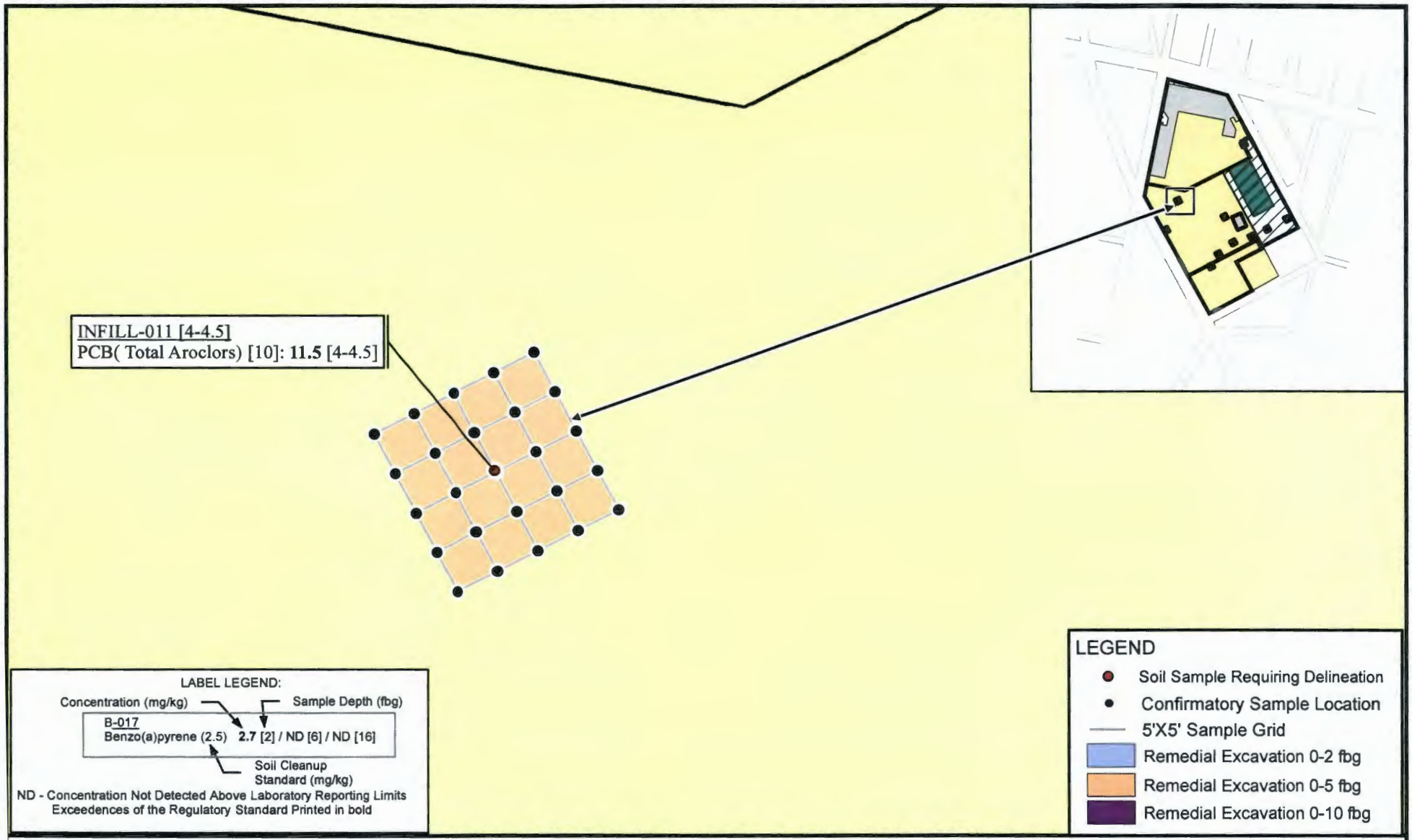

FIGURE 9: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING GRID- MAP 2

Proposed Excavation | Restricted Use Area | Impermeable Sidewalk | Undeveloped Area | High Occupancy | Parking Lot

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3 6 12 18 24 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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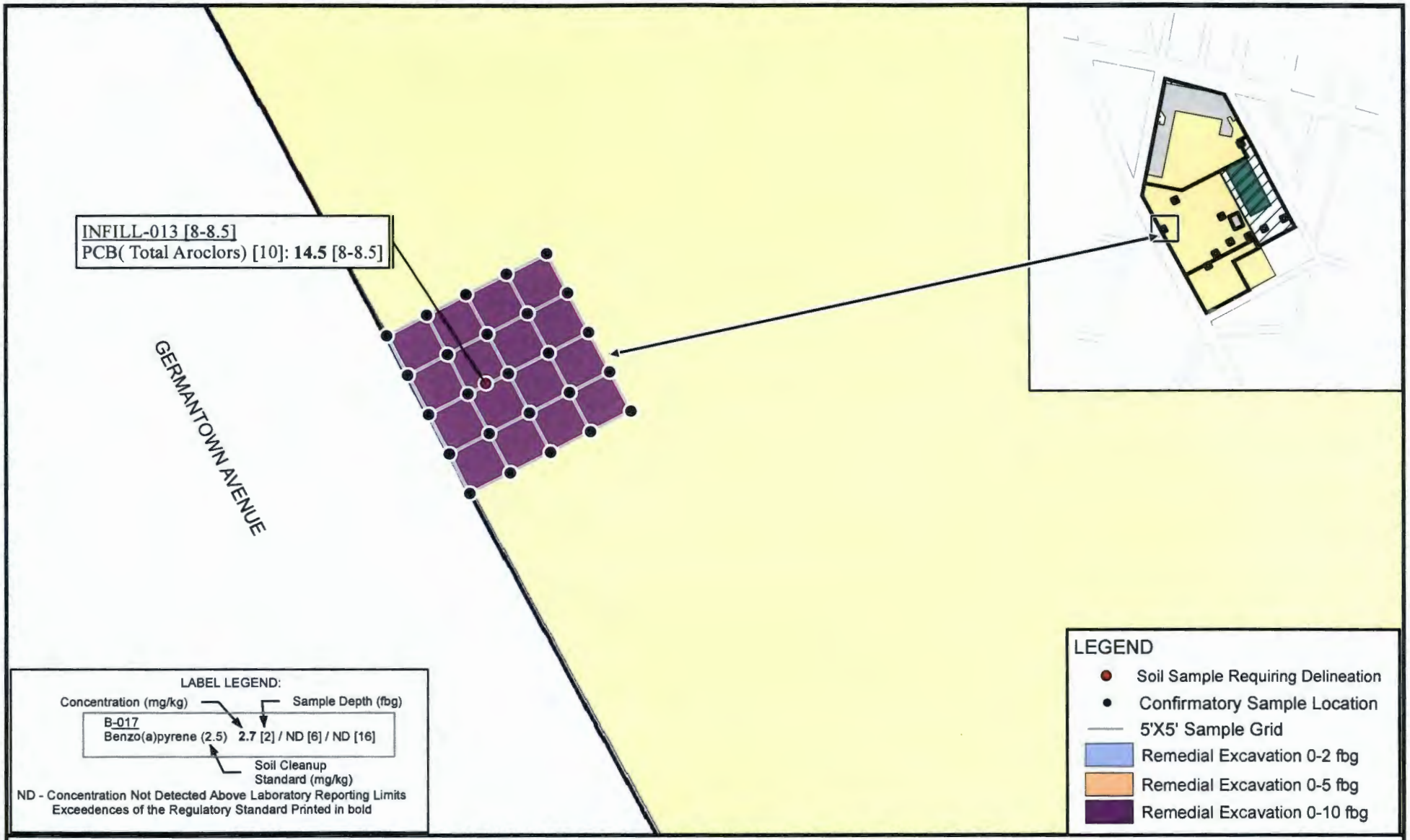

FIGURE 10: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING GRID- MAP 3

Proposed Excavation | Restricted Use Area | Impermeable Sidewalk | Undeveloped Area | High Occupancy | Parking Lot

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 15 feet

0 3 6 12 18 24 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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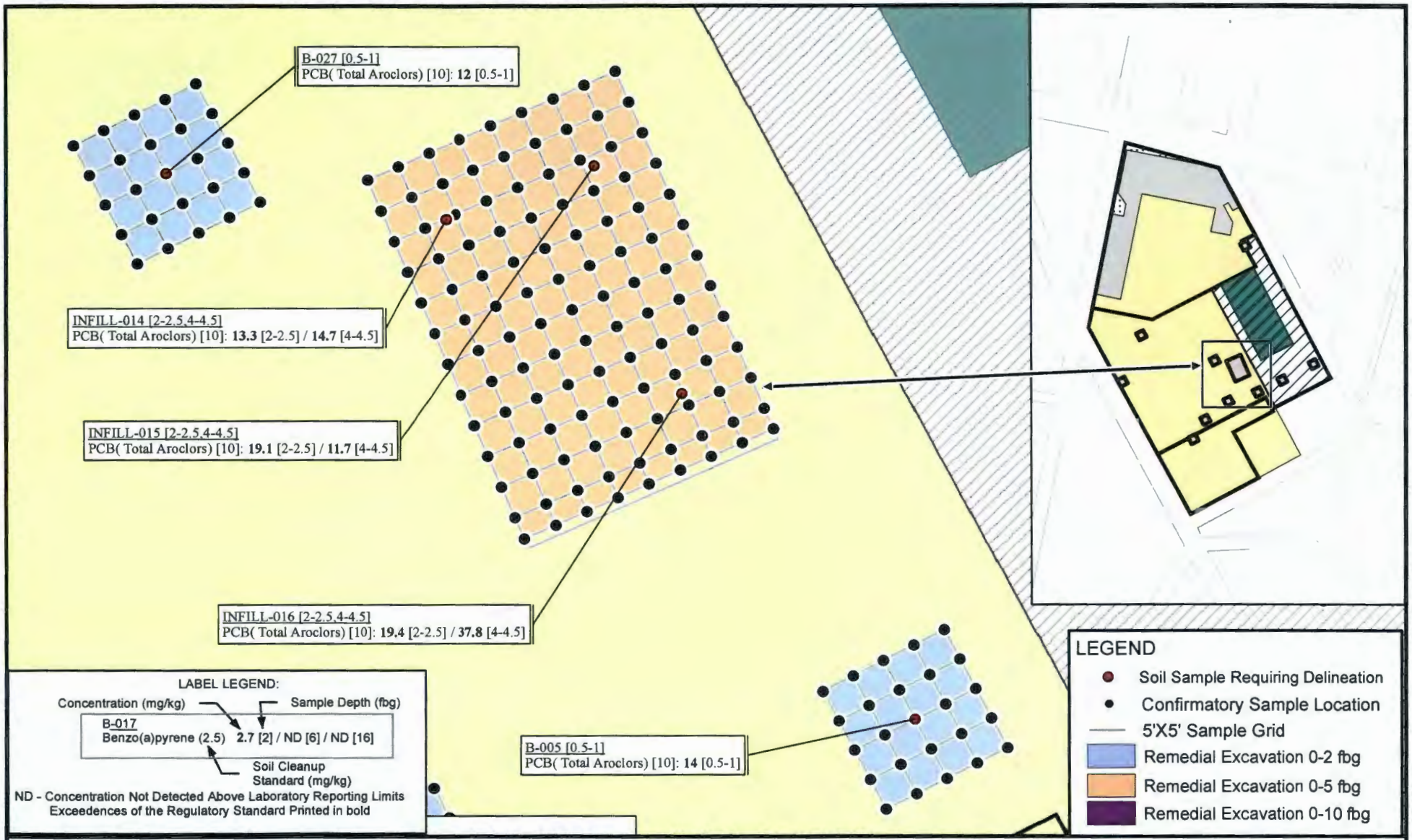

FIGURE 11: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING GRID- MAP 4

Proposed Excavation | Restricted Use Area | Impermeable Sidewalk | Undeveloped Area | High Occupancy | Parking Lot

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 20 feet

0 4 8 16 24 32 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*

PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*

PROJECT NUMBER: *006651*

DATE: *FEBRUARY 2009*

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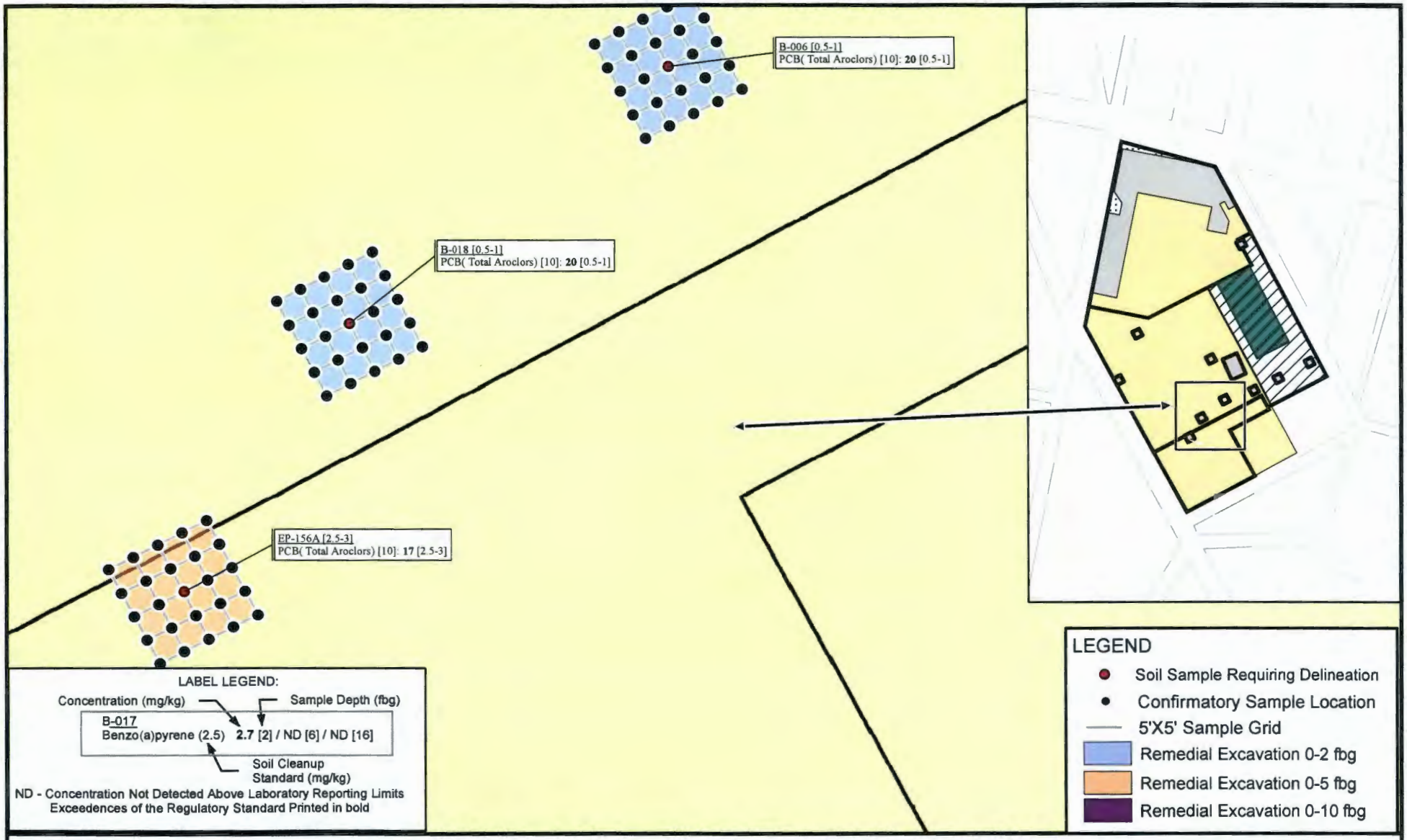

FIGURE 12: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING GRID- MAP 5

Proposed Excavation | Restricted Use Area | Impermeable Sidewalk | Undeveloped Area | High Occupancy | Parking Lot

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 25 feet

0 5 10 20 30 40 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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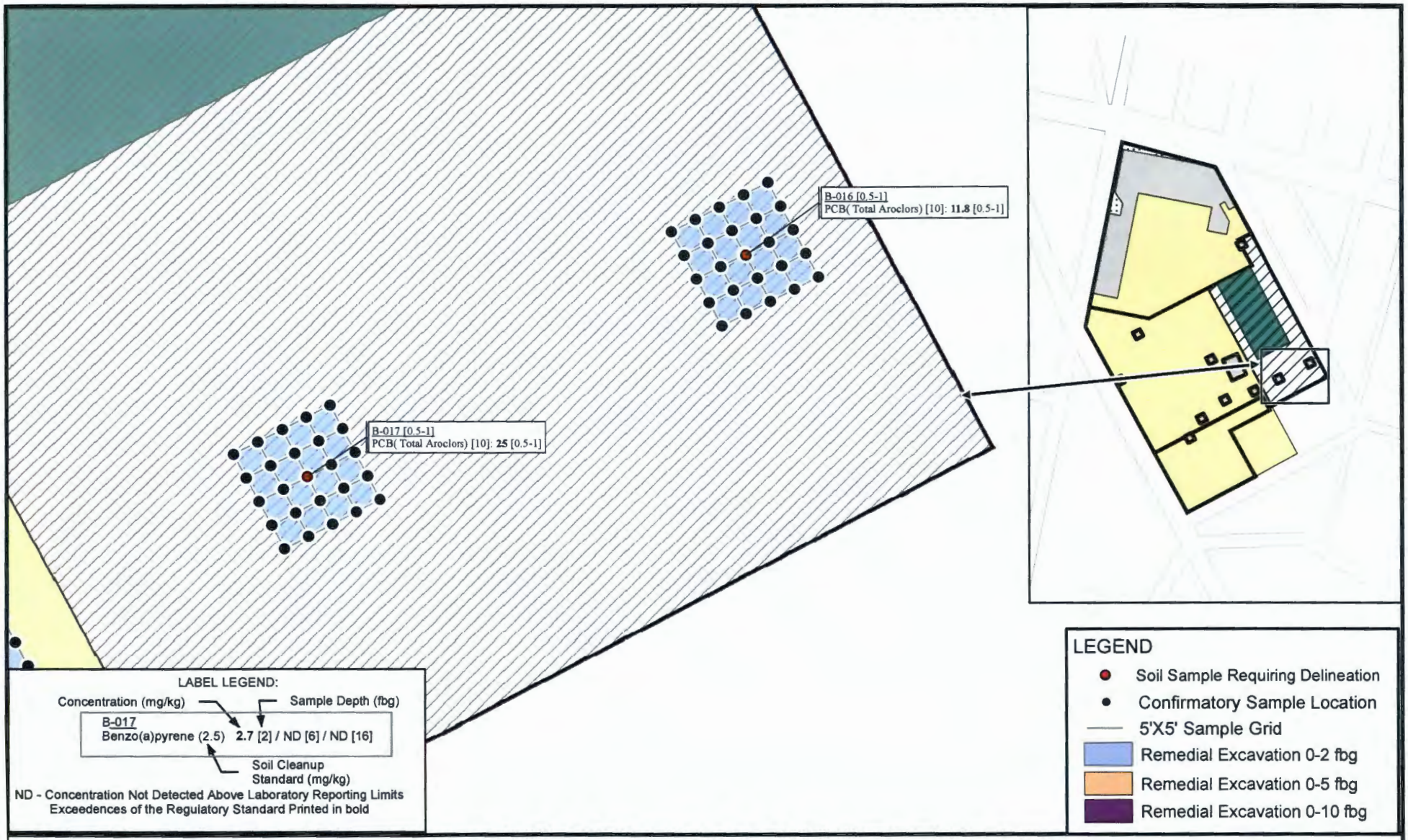

FIGURE 13: PROPOSED EXCAVATIONS AND CONFIRMATORY SAMPLING GRID- MAP 6

Proposed Excavation | Restricted Use Area | Impermeable Sidewalk | Undeveloped Area | High Occupancy | Parking Lot

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE: 1 inch = 25 feet

0 5 10 20 30 40 Feet

PROJECT NAME: *FORMER SCHMIDT'S BREWERY*
PROJECT ADDRESS: *NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA*
PROJECT NUMBER: *006651*
DATE: *FEBRUARY 2009*

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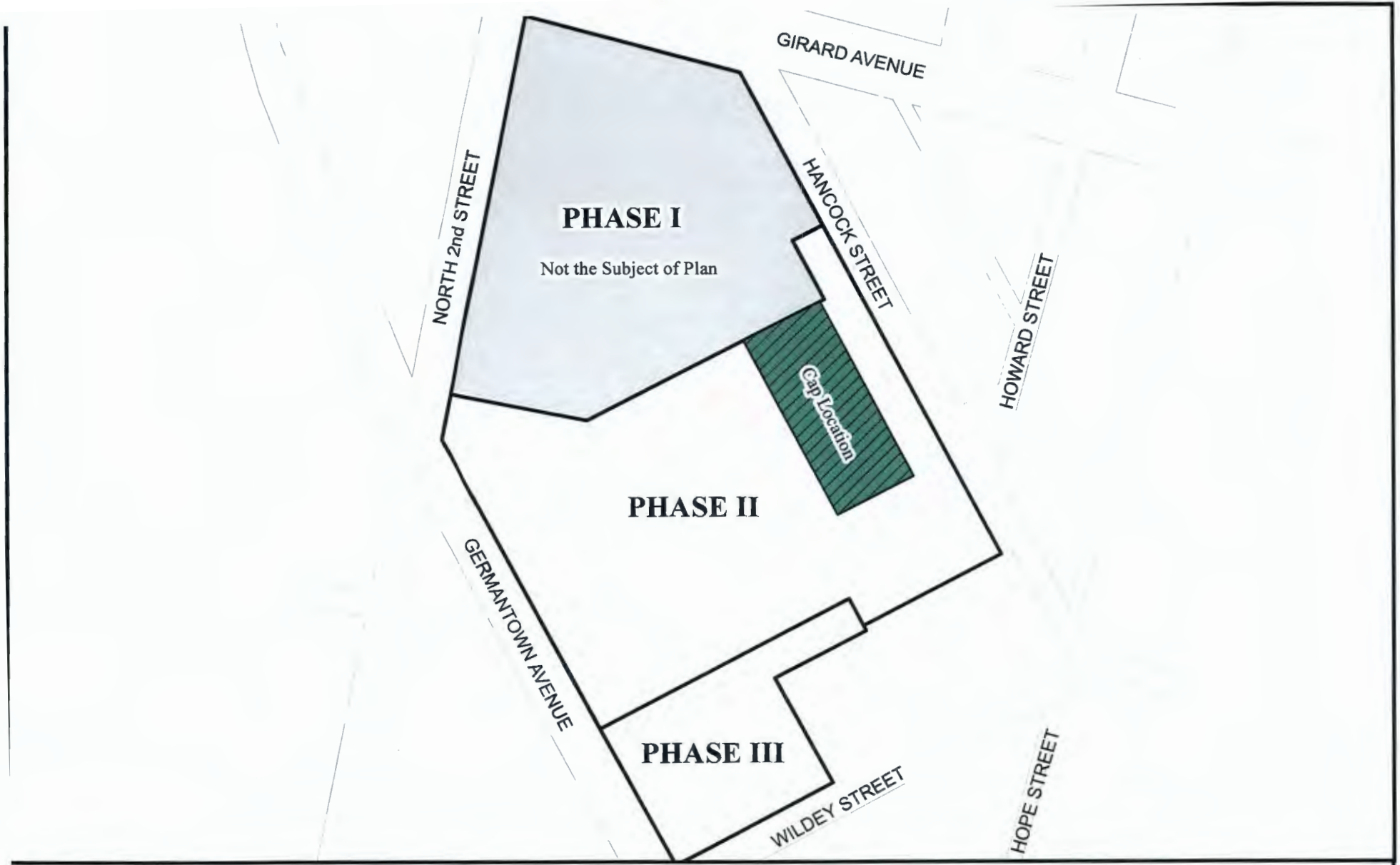

FIGURE 14: PROPOSED TSCA CAP LOCATIONS

REPSG
React Environmental Professional Services Group, Inc.

MAP SCALE:
0 35 70 140 210 280 Feet

PROJECT NAME: ***FORMER SCHMIDT'S BREWERY***
PROJECT ADDRESS: ***NORTH 2nd STREET & GIRARD AVENUE, PHILADELPHIA, PA***
PROJECT NUMBER: ***006651***
DATE: ***FEBRUARY 2009***

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TAB

Appendix B

APPENDIX B: ANALYTICAL SUMMARY TABLES

REPSG
React Environmental
Professional Services Group, Inc.

Analytical Summary - Restricted Use Area

Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 09/02/2005-01/12/2009

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in Low Occupancy Areas

Constituent	Unit	*Standard	Location:	B-025	B-030	EP-171A	EP-171A	EP-171A	EP-171B
			Date:	09/02/2005	09/02/2005	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	0.5-1	0.5-1	2.5-3	7.5-8	12.5-13	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		7.4	5.9	26.4	<0.011U	<0.011U	42

Constituent	Unit	*Standard	Location:	EP-171B	EP-171B	EP-172A	EP-172A	EP-172A	EP-172B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		0.56	10.5	7	5.1	3.1	12.2

Constituent	Unit	*Standard	Location:	EP-172B	EP-172B	EP-173A	EP-173A	EP-173A	EP-173B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	12.5-13	7.5-8	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		11.6	13.5	15.6	<0.012U	0.76	17.4

Constituent	Unit	*Standard	Location:	EP-173B	EP-173B	EP-174A	EP-174A	EP-174A	EP-174B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13	2.5-3

Print Date: 02/17/2009

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 09/02/2005-01/12/2009

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in Low Occupancy Areas

Constituent	Unit	*Standard	Location:	EP-173B	EP-173B	EP-174A	EP-174A	EP-174A	EP-174B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		1.4	<0.011U	24.3	4.5	13	10.5

Constituent	Unit	*Standard	Location:	EP-174B	EP-174B	EP-175A	EP-175A	EP-175A	EP-175B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		0.78	<0.011U	10.4	1	<0.012U	19.9

Constituent	Unit	*Standard	Location:	EP-175B	EP-175B	EP-176A	EP-176A	EP-176A	EP-176B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	12.5-13	2.5-3	7.5-8	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		0.34	<0.012U	<0.011U	0.69	<0.012U	8.6

Constituent	Unit	*Standard	Location:	EP-176B	EP-176B	EP-177A	EP-177A	EP-177A	EP-177B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	2.5-3	12.5-13	2.5-3
Polychlorinated Biphenyls (PCBs)									

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 00665!

Matrix: Soil
Sample Dates: 09/02/2005-01/12/2009

Regulatory Standard*:
40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in Low Occupancy Areas

Constituent	Unit	*Standard	Location:	EP-176B	EP-176B	EP-177A	EP-177A	EP-177A	EP-177B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	2.5-3	12.5-13	2.5-3
PCB(Total Aroclors)	mg/kg	25		0.24	<0.12U	<0.1U	43.5	<0.12U	34.5

Constituent	Unit	*Standard	Location:	EP-177B	EP-177B	EP-178A	EP-178A	EP-178A	EP-178B
			Date:	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008	12/08/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		<0.12U	<0.12U	<0.11U	<0.12U	<0.11U	<0.11U

Constituent	Unit	*Standard	Location:	EP-178B	EP-178B	EP-179	EP-180	EP-181	EP-181
			Date:	12/08/2008	12/08/2008	01/12/2009	01/12/2009	01/12/2009	01/12/2009
			Depth (ft):	7.5-8	12.5-13	2.5-3	2.5-3	2.5-3	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		<0.11U	<0.23U	6.6	4.5	10.7	0.22

Constituent	Unit	*Standard	Location:	EP-182	EP-183	EP-184	EP-185	EP-186	EP-187
			Date:	01/12/2009	01/12/2009	01/12/2009	01/12/2009	01/12/2009	01/12/2009
			Depth (ft):	2.5-3	2.5-3	2.5-3	2.5-3	2.5-3	2.5-3
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		22	28.9	2.7	35.6	45.1	33.7

** No Applicable Regulatory Standard

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 09/02/2005-01/12/2009

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in Low Occupancy Areas

Constituent	Unit	*Standard	Location:	EP-188	EP-189	EP-189	EP-189	EP-190	EP-190
			Date:	01/12/2009	01/12/2009	01/12/2009	01/12/2009	01/12/2009	01/12/2009
			Depth (ft):	2.5-3	2.5-3	7.5-8	12.5-13	2.5-3	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	25		28.8	7	11.1	11.2	6.7	10

Constituent	Unit	*Standard	Location:	EP-191	EP-202	EP-202
			Date:	01/12/2009	01/12/2009	01/12/2009
			Depth (ft):	2.5-3	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)						
PCB(Total Aroclors)	mg/kg	25		2.3	13.3	5.8

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REPSG
React Environmental
Professional Services Group, Inc.

Analytical Summary - Unrestricted Use Area

Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	B-001	B-001	B-002	B-002G	B-003	B-003
			Date:	09/01/2005	09/01/2005	09/02/2005	08/18/2005	09/01/2005	09/01/2005
			Depth (ft):	0.5-1	12-12.5	0.5-1	19-19.5	0.5-1	12-12.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		7.6	<0	6.3	<0	0.72	<0

Constituent	Unit	*Standard	Location:	B-003G	B-004	B-004	B-005	B-005G	B-006
			Date:	08/18/2005	09/01/2005	09/01/2005	09/02/2005	08/18/2005	09/01/2005
			Depth (ft):	18-18.5	0.5-1	12-12.5	0.5-1	18-18.5	0.5-1
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0	<0	<0	14	<0	20

Constituent	Unit	*Standard	Location:	B-006	B-006G	B-007	B-008	B-008	B-009
			Date:	09/01/2005	08/18/2005	09/02/2005	09/01/2005	09/01/2005	09/01/2005
			Depth (ft):	8-8.5	18-18.5	0.5-1	0.5-1	12-12.5	0.5-1
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		0.089	<0	<0UD	0.48	<0	0.29

Constituent	Unit	*Standard	Location:	B-009G	B-010	B-010	B-010G	B-011	B-011
			Date:	08/18/2005	09/01/2005	09/01/2005	08/18/2005	09/01/2005	09/01/2005
			Depth (ft):	11.5-12	0.5-1	12-12.5	8.5-9	0.5-1	12-12.5

Print Date: 02/17/2009

** No Applicable Regulatory Standard

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	B-009G	B-010	B-010	B-010G	B-011	B-011
			Date:	08/18/2005	09/01/2005	09/01/2005	08/18/2005	09/01/2005	09/01/2005
			Depth (ft):	11.5-12	0.5-1	12-12.5	8.5-9	0.5-1	12-12.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		0.26	1.6	<0	<0	<0UD	<0

Constituent	Unit	*Standard	Location:	B-011G	B-012	B-012	B-012G	B-013	B-013G
			Date:	08/18/2005	09/01/2005	09/01/2005	08/18/2005	09/02/2005	08/18/2005
			Depth (ft):	13-13.5	0.5-1	12-12.5	13-13.5	0.5-1	14-14.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0	0.56	<0	<0	<0UD	<0

Constituent	Unit	*Standard	Location:	B-014	B-015	B-016	B-016G	B-017	B-018
			Date:	09/02/2005	09/02/2005	09/02/2005	08/18/2005	09/02/2005	09/02/2005
			Depth (ft):	0.5-1	0.5-1	0.5-1	13-13.5	0.5-1	0.5-1
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		8	9.7	11.8	<0	25	20

Constituent	Unit	*Standard	Location:	B-019	B-020	B-021	B-022	B-023	B-023
			Date:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/01/2005	09/01/2005
			Depth (ft):	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	12-12.5
Polychlorinated Biphenyls (PCBs)									

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Analytical Chemistry Report

Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil

Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	B-019	B-020	B-021	B-022	B-023	B-023
			Date:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/01/2005	09/01/2005
			Depth (ft):	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	12-12.5
PCB(Total Aroclors)	mg/kg	10		0.8	<0UD	0.64	7	<0UD	<0

Constituent	Unit	*Standard	Location:	B-024	B-026	B-027	B-028	B-029	B-032
			Date:	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
			Depth (ft):	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		1.1	7.4	12	<0UD	2	0.89

Constituent	Unit	*Standard	Location:	B-034	B-035	B-039A	B-039B	B-039C	B-039D
			Date:	09/02/2005	09/02/2005	09/23/2005	09/23/2005	09/23/2005	09/23/2005
			Depth (ft):	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		9.6	15	<0UD	<0UD	<0UD	0.92

Constituent	Unit	*Standard	Location:	B-039E	B-039F	EG-074	EP-155A	EP-155A	EP-155A
			Date:	09/23/2005	09/23/2005	07/24/2008	12/09/2008	12/11/2008	12/11/2008
			Depth (ft):	0.5-1	0.5-1	2-2.5	2.5-3	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0UD	3	0.108	2.5	<0.11U	<0.11U

Print Date: 02/17/2009

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	EP-155B	EP-155B	EP-156A	EP-156A	EP-156A	EP-156B
			Date:	12/09/2008	12/09/2008	12/09/2008	12/11/2008	12/11/2008	12/09/2008
			Depth (ft):	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13	7.5-8
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0.11U	<0.1U	17	<0.12U	<0.11U	1.4

Constituent	Unit	*Standard	Location:	EP-156B	EP-157A	EP-157A	EP-157A	EP-157B	EP-157B
			Date:	12/09/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008
			Depth (ft):	12.5-13	2.5-3	7.5-8	12.5-13	12.5-13	7.5-8
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		1.8	9.8	<0.12U	<0.11U	0.6	1.6

Constituent	Unit	*Standard	Location:	EP-158A	EP-158A	EP-158A	EP-158B	EP-158B	EP-158B
			Date:	12/11/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008
			Depth (ft):	2.5-3	7.5-8	12.5-13	2.5-3	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		2.2	<0.11U	<0.12U	0.99	<0.11U	<0.1U

Constituent	Unit	*Standard	Location:	EP-159A	EP-159A	EP-159B	EP-159B	EP-160A	EP-160A
			Date:	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	EP-159A	EP-159A	EP-159B	EP-159B	EP-160A	EP-160A
			Date:	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	12.5-13	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0.11U	<0.12U	<0.11U	<0.11U	<0.11U	<0.12U

Constituent	Unit	*Standard	Location:	EP-160B	EP-160B	EP-161A	EP-161A	EP-161B	EP-161B
			Date:	12/09/2008	12/09/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008
			Depth (ft):	7.5-8	12.5-13	12.5-13	7.5-8	12.5-13	7.5-8
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0.13U	<0.12U	<0.11U	0.6	<0.11U	6.6

Constituent	Unit	*Standard	Location:	EP-163A	EP-163A	EP-163B	EP-163B	EP-164A	EP-164A
			Date:	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008
			Depth (ft):	7.5-8	12.5-13	12.5-13	7.5-8	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0.11U	<0.11U	<0.11U	<0.11U	<0.11U	<0.11U

Constituent	Unit	*Standard	Location:	EP-164B	EP-164B	EP-165A	EP-165A	EP-165B	EP-165B
			Date:	12/09/2008	12/09/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	12.5-13	12.5-13	7.5-8
Polychlorinated Biphenyls (PCBs)									

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	EP-164B	EP-164B	EP-165A	EP-165A	EP-165B	EP-165B
			Date:	12/09/2008	12/09/2008	12/11/2008	12/11/2008	12/11/2008	12/11/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	12.5-13	12.5-13	7.5-8
PCB(Total Aroclors)	mg/kg	10		<0.11U	<0.11U	<0.12U	<0.12U	<0.11U	<0.12U

Constituent	Unit	*Standard	Location:	EP-167A	EP-167A	EP-167B	EP-167B	EP-168A	EP-168A
			Date:	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	12.5-13	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0.11U	<0.12U	<0.11U	<0.11U	<0.11U	<0.11U

Constituent	Unit	*Standard	Location:	EP-168B	EP-168B	EP-169A	EP-169A	EP-169B	EP-169B
			Date:	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008	12/09/2008
			Depth (ft):	7.5-8	12.5-13	7.5-8	12.5-13	7.5-8	12.5-13
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0.11U	<0.12U	<0.12U	<0.11U	<0.11U	<0.11U

Constituent	Unit	*Standard	Location:	INFILL-011	INFILL-011	INFILL-011	INFILL-012	INFILL-012	INFILL-012
			Date:	10/13/2008	10/13/2008	10/13/2008	10/13/2008	10/13/2008	10/13/2008
			Depth (ft):	2-2.5	4-4.5	8-8.5	2-2.5	4-4.5	8-8.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		1.84	11.5	6.59	3.26	7.47	0.646

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	INFILL-013	INFILL-013	INFILL-013	INFILL-014	INFILL-014	INFILL-015
			Date:	10/13/2008	10/13/2008	10/13/2008	10/13/2008	10/13/2008	10/13/2008
			Depth (ft):	2-2.5	4-4.5	8-8.5	4-4.5	2-2.5	2-2.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		7.18	3.99	14.5	14.7	13.3	19.1

Constituent	Unit	*Standard	Location:	INFILL-015	INFILL-015	INFILL-016	INFILL-016	INFILL-016	SB-201
			Date:	10/13/2008	10/13/2008	10/13/2008	10/13/2008	10/13/2008	10/16/2007
			Depth (ft):	4-4.5	8-8.5	2-2.5	4-4.5	8-8.5	12-12.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		11.7	0.461	19.4	37.8	6.38	<0

Constituent	Unit	*Standard	Location:	SB-202	SB-203	SB-207	SB-208	SB-209	SB-211
			Date:	10/16/2007	10/16/2007	10/16/2007	10/16/2007	10/16/2007	10/16/2007
			Depth (ft):	10-10.5	8-8.5	6-6.5	3-3.5	6-6.5	6-6.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		1.79	<0	3.5	3.7	4.2	4

Constituent	Unit	*Standard	Location:	SB-212	TP-001	TP-001	TP-002	TP-002	TP-003
			Date:	10/16/2007	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002

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Analytical Chemistry Report
Former Schmidts Brewery Site Philadelphia, Pennsylvania REPSG Project No.: 006651

Matrix: Soil
Sample Dates: 10/24/2002-12/11/2008

Regulatory Standard*:

40 CFR Part 761.61 Subpart D - Cleanup Level for Bulk PCB Remediation Waste in High Occupancy Areas with Deed Restriction

Constituent	Unit	*Standard	Location:	SB-212	TP-001	TP-001	TP-002	TP-002	TP-003
			Date:	10/16/2007	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
			Depth (ft):	3-3.5	16-16.5	4-4.5	16-16.5	4-4.5	15-15.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		3.8	<0	<0	<0	0.33	<0

Constituent	Unit	*Standard	Location:	TP-003	TP-004	TP-004	TP-006	TP-006	TP-007
			Date:	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002	10/24/2002
			Depth (ft):	4-4.5	16-16.5	4-4.5	16-16.5	4-4.5	16-16.5
Polychlorinated Biphenyls (PCBs)									
PCB(Total Aroclors)	mg/kg	10		<0	<0	<0	<0	<0	1.03

Constituent	Unit	*Standard	Location:	TP-007
			Date:	10/24/2002
			Depth (ft):	4-4.5
Polychlorinated Biphenyls (PCBs)				
PCB(Total Aroclors)	mg/kg	10		0.02

** No Applicable Regulatory Standard

Exceedences of the regulatory standard are printed in bold. # = Reporting limit exceeds regulatory standard. NOC = Not of Concern.

QUALIFIERS: U = Constituent not detected above Method Detection Limit (MDL). J = Estimated Value. < = Indicates that the reported concentration is the Method Detection Limit (MDL). D = Compound identified at a secondary dilution factor. B = Analyte reported in associated field or trip blank. N = Tentatively Identified Compound (TIC). Y = Tentatively Identified Compound (TIC) also identified in Method Blank. E = Reported result is over instrument calibration range. This result is an estimate; the true result may be higher. C = Calibration verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.